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Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

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NO. IX.

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HOW TO MAKE JAMS.

JAMS, or conserves of fruit and sugar, are all made by boiling either the pulped or bruised fruit over a fire, with one-half of its weight to an equal weight of loaf-sugar, until the mixture becomes a jelly when a little is placed on a cold plate. When sufficiently thick, the half-fluid mass should be passed through a coarse hair-sieve, while hot, in order to remove the stones and skins of the fruit, and poured into pots or glass jars. The latter may be covered with paper dipped in brandy or with pieces of bladder closely tied on. The following are the proportions employed in making some of the principal preserves:—

1. *Apricot Jam*.—Six dozen apricots, stoned and pared, or flesh of the fruits, two and a half pounds; white sugar two or three pounds; will yield about four and a half pounds of jam.

2. *Cherry Jam*.—Stoned cherries four pounds; white sugar two pounds; improved by adding about two pounds of red currants, or a pint of currant-juice.

3. *Gooseberry Jam*.—Picked and stalked gooseberries (red or yellow) 22 lbs.; white sugar 12 lbs.; will produce 26 lbs.

4. *Orleans Plum Jam*.—Equal weight of fruit and sugar; improved by the addition of a few ripe raspberries or gooseberries.

5. *Raspberry Jam*.—Picked raspberries and white sugar, of each 14 lbs.; improved by a little red or white currant-juice. Product 26 lbs.

6. *Strawberry Jam*.—Picked strawberries and white sugar, of each seven pounds; will make 13 lbs. of jam. May be made with or without the addition of currant-juice.

7. *Apple Jam*.—Equal weight of fine flavored sour apples pared and quartered, and of white sugar with the addition of one quince.

APPLE-ORCHARDS.—No. 1.

THE introduction of the common apple-tree into the North American colonies, dates back to the earliest periods of their settlements. In the Middle, Northern, and some of the Western States, no branch of rural economy has been pursued with more zeal, and few have been attended with more successful and beneficial results, than the cultivation of orchards. It was not undertaken on an extensive scale, however, until about the commencement of the present century, when, according to the Transactions of the Massachusetts Agricultural Society, the hardy yeomanry of the soil entertained the opinion that "the moderate use of cider, as a common beverage, was highly conducive to sound health and long life." It appears from Dodsley's London "Annual Register," that in the year 1768, the Society for promoting Arts, &c., at New York, awarded a premium of £10 to Thomas Young, of Oyster Bay, for the largest nursery of apple-trees, the number being twenty-seven thousand one hundred and twenty-three. Between the years 1794 and 1808, Mr. William Coxe, of Burlington, New Jersey, enriched his lands in that vicinity with extensive orchards, containing in the aggregate several thousand trees, which occupied a space of seventy or eighty acres; and within and since that period, numerous other orchards have been planted in various parts of the country, equalling and even surpassing them in extent. Among the largest, and perhaps the most select, are those of Mr. Robert L. Pell, of Ulster county, New York, which have been planted about twenty years, and are said to contain twenty thousand trees.

Choice of Varieties.—So great is the diversity of taste, in regard to the merits of this fruit, and so numerous are the varieties which are rapidly be-

coming more and more multiplied, it is difficult to make out a list of those best adapted for the dessert, the kitchen, or general use. This branch of knowledge, we think, forms a very important feature in practical horticulture, and is one of the most desirable objects to which individuals and societies for the encouragement of experiments in cultivation can direct their attention. It would, at least, have a tendency to diminish the embarrassing list of varieties, by confining themselves to the best sorts.

Apples, for the various purposes in domestic economy, recommend themselves to our choice by very different qualities; though some few varieties are almost equally well adapted to all purposes. In those for the table, we require sweetness with a subdued and pleasant acidity, and a delicate, aromatic flavor. In the kitchen-apple, size, the quality of keeping, and a considerable acidity are the principal requisites; and in those intended for boiling and for making sauce, or apple-butter, acidity is an indispensable property. The best apples for cider, are those which yield a juice of the greatest specific gravity; and it is believed to be true that cider made from trees grown on a strong, clayey soil, has more strength, and will keep better, than that made from trees on a sandy soil. The red and yellow color of the rind is considered as good indications of cider-fruit, and apples of the various degrees of these colors are decidedly preferable to those of which the rinds are green. The pulp should be yellow, the taste rich, and somewhat astringent. Apples of a small size, if equal in quality, are always to be preferred for cider to those of a larger size, in order that the rind and kernels may bear the greatest proportion to the pulp, the latter of which affords the weakest and the most watery juice.

The varieties selected and recommended by the Committee of the N. Y. State Agricultural Society, best adapted for domestic use and exportation, and suitable to be cultivated in the State of New York, are as follows:—

SUMMER APPLES.

Early Harvest, Early Strawberry, Large Yellow Bough, Early Joe, and Williams' Favorite

FALL APPLES.

Fall Pippin, Golden Sweet, Gravenstein, Jersey Sweeting, Porter, Rambo, Detroit Red, and Belle-bonne.

WINTER APPLES.

Baldwin, Yellow Belle Fleur, Hubbardston Nonesuch, Jonathan, Newtown Pippin (green), Northern Spy, Blue Pearmain, Rhode Island Greening, American Golden Russet, Roxbury Russet, Swaar, Ladies' Sweeting, Talman's Sweeting, Esopus Spitzenburg, Vandervere, Waxen, and West-field Seek-no-further.

The following are recommended by the Committee of the Horticultural Society of Genesee Valley, N. Y., the names being placed in the order of ripening:—

SUMMER APPLES.

Early Harvest, Early Strawberry, Red Astrachan, Sweet Bough, or Yellow Bough, and Golden Sweet.

FALL APPLES.

Early Joe, Porter, St. Lawrence, Jersey Sweeting, Gravenstein, Fall Jenneting, and Holland Pippin.

WINTER APPLES.

Twenty Ounce, Fameuse, Red Canada, Peck's Pleasant, Yellow Belle Fleur, Swaar, Talman's Sweeting, Rhode Island Greening, Esopus Spitzenburg, Baldwin, Green Sweeting, Northern Spy, Roxbury Russet, and Yellow Newtown Pippin.

The following list represents the kinds regarded in Massachusetts and New England generally, as well suited to a Northern climate; they command a high price in Boston market:—

SUMMER APPLES.

Benoni, Bough, Early Harvest, Margaret (early red), and Williams' Favorite.

FALL APPLES.

Gillyflower, Gravenstein, Hawthornden, Jersey Sweeting, Lyscom, Minister, Summer Pearmain, and Porter.

WINTER APPLES.

Baldwin, Yellow Belle Fleur, Danvers Winter Sweeting, Rhode Island Greening, Ribstone Pippin, Roxbury Russet, Swaar, Talman's Sweeting, Lady, and Canada Gray.

The following named varieties we select from the catalogue of D. Landreth and Fulton, of Philadelphia, which are believed to be eminently worthy of culture in that region:—

SUMMER APPLES.

Red Astrachan, Bevan, English Codlin, Early Queen, Early Harvest, Summer Queen, Lippincott, Siberian Crab, Woolman's Harvest, Summer Pearmain, and Red Juneating.

FALL APPLES.

Alexander, Irish Codlin, White Codlin, Doctor, or Dewitt, Grindstone, Hawthornden, Maiden's Blush, Morgan, Holland Pippin, Blenheim Pippin, Pound, Porter, Roman Stem, Rambo, and Vandervere.

WINTER APPLES.

Baldwin, Yellow Belle Fleur, Carthouse, Cumberland Spice, Rhode Island Greening, Ladies' Sweeting, Gates', Harrison, Lady, or Pomme d' Api, Talman's Sweeting, Lady Finger, Blue Pearmain, Pennock's Red, Bullock Pippin, Golden Pippin, American Pippin, Michael Henry Pippin, Ribstone Pippin, Hollow-cored Pippin, Newtown Pippin (green and yellow), Priestly, Roxbury Russet, Red Seek-no-further, Newtown Spitzenburg, Esopus Spitzenburg, Kaighn's Spitzenburg, Moore's Sweeting, Swaar, Tewkesbury Blushy Wine, or Hay's, Winesap, Winter Queen, and Yorkshire Greening.

Among the choice varieties which succeed well in Ohio, we select the following, hoping that some correspondent will soon furnish us with a more perfect list:—

All's Russet, Yellow Belle Fleur, Cooper, Red Detroit, Putnam's Russet, Philips' Sweeting, Newtown Spitzenburg, or Ox-eye, White Pippin, Winesap, and Vandervere.

In the present and the succeeding numbers of the Agriculturist, we propose to give figures in outline, furnished us principally by Mr. Starr, of the N. Y. Farmer and Mechanic, copied from Landreth's Dictionary of Gardening, with descriptions of some of the most prominent varieties of apples, which, we trust, will be acceptable to such of our

readers as do not possess a more elaborate work devoted wholly to fruits.

WILL "Philom," of Grand Isle County, Vermont, favor us with any hints respecting the advantages he possesses in regard to a valuable manure? The information he asks for will probably be found in the series of articles on "Apple-Orchards," the first of which appears on the preceding pages.

SMITH'S IMPROVED VENTILATING SMUTTER MACHINE.

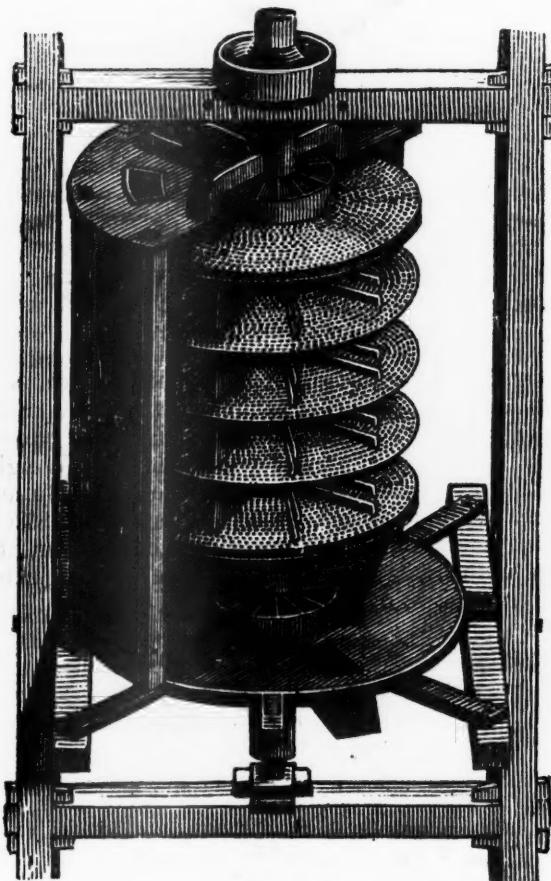


FIG. 62.

THIS machine has been in use since 1838, when letters patent were granted by the United States. When first built, it was represented to be the most perfect smutter ever invented, and has since proved itself so. It is difficult to say what length of time it will endure. There are now running those which have been in use seven years, and others five or six years, that have not required the least repairing, and work in all respects as well as when first put up.

These machines are warranted by the inventor to excel all others in use, and to give perfect satisfaction; and a trial will be granted to any person who may wish the same before purchasing. The prices vary from \$80 to \$275 each, according to size, capacity, or fixtures attached.

NUTRITIOUS BREAD.—Boil half a pound of rice in three pints of water, till the whole becomes thick and pulpy. With this and yeast, and six pounds of flour, make your dough. In this way, it is said, as much bread will be made, as if eight pounds of flour, without the rice, had been used.

CULTIVATION OF TURNIPS.—No. 3.

Storing the Crop.—Turnips, wherever the soil and climate are favorable, may remain in the drills and be taken up as they are wanted. But this can only be done with safety, on light, dry, well-drained land, secure from the depredation of animals, and in a country free from wintry frost or snow. Hence, on no account should this be attempted on the more retentive or undrained soils, or in any portion of the Middle or Northern States.

Only the harder and more compact varieties of turnips, such as the yellow Aberdeen, the golden Maltese, and the Swedish (*ruta-baga*), should be attempted to be stored at all. The white globe, the tankard, and other tender kinds, are very difficult to keep either in the field or elsewhere, and should only be grown for early culinary use, and as a preparation to the cattle, &c., for the harder and less palatable yellow and Swedish kinds. As a general rule, in the Middle and Western States, turnips may remain in the drills until the latter end of November; but in no case should the storing be delayed beyond the falling of snow or the closing of the ground by frost. In the more Southern States of the Union, the sowing may be continued from August until January or February, so that a succession of crops may be had, and used, as occasion may require, without the trouble of storing.

Preparatory to storing, the turnips should be carefully drawn out of the ground, by the hand or otherwise, and the top leaves and tap-root cut off at one clean cut about an inch from the bulb. In doing this, the greatest care should be observed that the skin of the turnip be not in the least cut or bruised, as a bulb so injured is *almost certain to rot in the heap* when stored, which not only is apt to cause the loss of the bulb itself, but often the decay of those near it. All turnips so injured should be thrown aside for immediate use. The top leaves may be given to cows, young cattle, or sheep, and the bulbs stored according to the climate, or the uses to which they are to be applied.

The turnips intended for early consumption may be put into a cool, dry cellar, or turnip-house, and used as circumstances may require; but those designed for long keeping should previously be exposed a day or two in a dry place, and then arranged in heaps about seven feet broad at the base, and as long as may be necessary, formed up to a narrow top. A layer of straw, say three or four inches thick, should first be spread on the ground, and on this a stratum of turnips about two feet deep; and then other layers of straw and bulbs are to be formed alternately, until the top be carried to a point, the projecting ends of the straw being turned up to prevent the turnips from rolling out. The whole should then be covered with straw, about six inches deep, not thrown on at random, but straightened out as if for thatching, and laid on so as to shed off the rain. Around the base of the heap a small trench should be dug, for guarding the turnips from the wet.

By the foregoing method of storing, it will be understood that the object aimed at is to expose the turnips to as low a degree of temperature as possible, without freezing, by the circulation of air through the heap, which, it is well known, will cause them to keep well in any temperature be-

tween 32° and 50° F.; but if the climate be such as to expose them to freezing cold, as in most parts of the Middle and Northern States, the heaps must be more thickly covered either with earth or straw.

Another plan of storing which we have known to succeed well in some parts of New England, is to bury the turnips late in the fall, in a dry, gravelly, or well-drained soil, just below the reach of frost, and in the April following, we have seen them dug up in nearly as hard, and sound a condition as at the time they were stored. The *main and absolutely necessary points* to be observed in this mode of storing, is, to keep the turnips secure from wet, or frost, and as near as possible to a temperature of 32° F., which, if it cannot be done by the natural porosity of the soil, must be affected by under-draining and intermixing them with reeds, straw, or hemlock boughs.

CORN AND COFFEE-MILLS.

It has long been a great desideratum to such as do not reside convenient to a mill, and to those who only wish now and then to grind a mess of hommony or some such trifling thing, as well as to travellers and armies on the march, in a thinly settled or savage country, to possess a mill of so light a weight and convenient form, as to be easily transportable, yet strong, durable, and of simple construction. This desideratum we think has been attained in the mills described below, which will be found suitable for grinding rice, corn, wheat, rye, barley, oats or any other kind of grain into meal; but they do not flour wheat and rye well, because they *cut* the grain with their iron teeth instead of *mashing* it between stones. For this reason they are better than stones for corn, and equally good for all kinds of grain, when flouring it for market is not desired. They are also suitable for grinding coffee and spices of all kinds.

These mills are made of plates of cast iron, and will usually last to grind from 500 to 1000 bushels of grain. After being worn out, new plates can be supplied, which will grind an equal number of bushels. The grain or spice, when put into these mills, falls from the hopper among coarse teeth set on a spiral shaft, which, in revolving rapidly, break it coarsely, and then pass it in between plates which can be screwed up to grind it to any required fineness.



FIG. 63.

FIG. 63 is properly a coffee or spice-mill, but will grind grain of any kind. It is sold without a frame, and is so constructed as to be fastened to a post or board in any part of the house, or it can be attached to a simple frame. It grinds from eight to six-

teen quarts per hour depending mainly on the speed at which it is run. Weight, 10 lbs. Price \$2. Price of extra plates 50 cents.

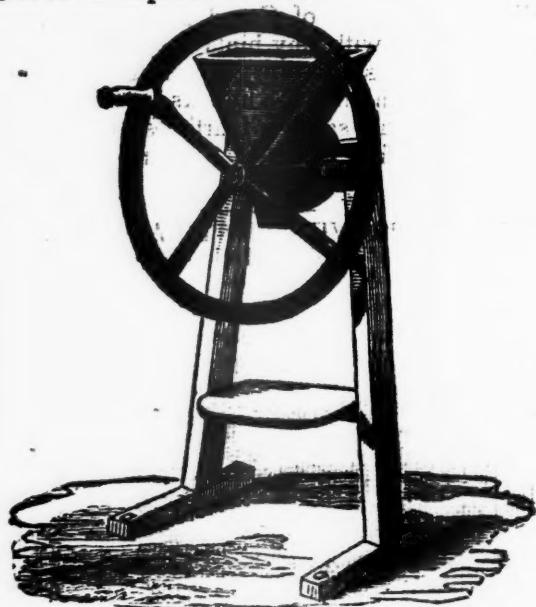


FIG. 64.

Fig. 64 is used for grinding grain, coffee, and spices, as desired. It is usually operated by hand, though it can be constructed to run by other power. It grinds from one to two bushels per hour. Weight without the frame, 50 lbs.; with the frame, 64 lbs. Price, without frame, \$6.50; with frame, \$7.00. Constructed to move by horse or other power, the price with frame complete would be \$9.00. Price of extra plates, \$1.25.



FIG. 65.

Fig. 65 is used for the same purposes as Fig. 64. It is too large to be propelled by hand to advantage. Weight without the frame, 190 lbs.; with the frame, 221 lbs. Price without the frame, \$29; with frame, \$30. Price of extra plates per pair, \$4.

THE DOMESTIC FLORA OF CHINA.—No. 3.

On the sides of the Canton River, both below and above the city, large quantities of the water lily, or lotus, are grown, which are enclosed by embankments in the same manner as the rice-fields. This plant is cultivated both as an ornament, and for the root, which is brought in large quantities to the markets, and of which the Chinese are remarkably fond. In the summer and autumn months, when in flower, the lotus fields have a gay and striking appearance, but at other seasons the decayed leaves and flowers, and the stagnant and dirty water, are not at all ornamental to the houses which they surround.

In the course of the spring, the Gardens of Fa-tee are gay with the tree peony, azaleas, camellias, roses, and various other plants. The azaleas are splendid, and reminded me of the exhibitions in the gardens of the Horticultural Society at Chiswick, but the Fa-tee exhibitions were on a much larger scale. Every garden was one mass of bloom, and the different colors of red, white, and purple blended together, had a most beautiful and imposing effect. The principal kinds grown were *Azalea indica*, *indica alba*, *phanicea*, *lateritia*, *variegata*; and the yellow *Azalea sinensis*. I may mention in passing, that I found the latter plant wild on the Ning-po hills, so that there is no doubt of its being a genuine Chinese species. The air at this season around Fa-tee is perfumed with the sweet flowers of *Olea fragrans*, and the *Magnolia fuscata*, both of which are grown extensively in these gardens. Dwarf trees, as may be supposed, occupy a principal station; they are trained into the most grotesque and curious forms. The plants which stand next to dwarf trees in importance with the Chinese are certainly chrysanthemums, which they manage extremely well, perhaps better than they do any other plant. So high do these plants stand in the favor of the Chinese gardener, that he will cultivate them extensively, even against the wishes of his employer; and, in many instances, rather leave his situation than give up the growth of his favorite flower. I was told that the late Mr. Beale used to say that he grew chrysanthemums in his garden for no other purpose than to please his gardener, not having any taste for this particular flower himself.

Tree peonies are not natives of the south of China, but are brought down in large quantities every year, about the month of January, from the northern provinces. They flower soon after they arrive, and are rapidly bought up by the Chinese to ornament their houses, after which they are thrown away, as they do not thrive well so far south as Canton or Macao, and will not flower a second season. They are sold according to the number of flower-buds they may have upon them, many of them fetching rather high prices.

I purchased a collection of *Tree-Paeonia*s during my first visit to Shanghae in the winter of 1843, which were said to be very splendid things, and entirely different in color from any plants of the kind which were known in England. I had of course, at that time, no opportunity of seeing their flowers, and was now, therefore, particularly anxious to get some which were in bloom, and had intended to send my old friend back again to Soo-chow for another collection, stipulating, however,

that the plants should this time have blooms upon them. One morning, as I was going out into the country, a short distance from Shanghae, I was surprised at meeting a garden laborer with a load of Moutans all in full flower, which he was taking towards the city for sale. The flowers were very large and fine, and the colors were *dark-purples*, *lilacs*, and *deep-reds*, kinds of which the very existence had been always doubted in England, and which are never seen even at Canton. Two English gentlemen who were excellent Chinese scholars, being with me at the time, we soon found out the name of the Moutan district; and from the state of the roots in the man's basket, I was quite certain that the plants had not been more than an hour or two out of the ground, and that consequently the place where they were grown could not be more than six or eight miles from Shanghae, a surmise which I afterwards found to be perfectly correct.

MEETING OF THE NEW YORK FARMERS' CLUB AT GREENPORT.

An adjourned meeting of this Club was held in the Presbyterian Church, at Greenport, on the evening of the 4th of August, having convened there with a large number of guests, on the invitation of the Long Island Railroad Company, for the object of instituting inquiries as to the cause of the present condition of the uncultivated lands in the vicinity of said road, and to determine as far as practicable, whether they are susceptible of being turned to profitable account for agricultural purposes.

Philip Schuyler, Esq., President of the Board of Agriculture, being called to the chair, briefly stated the object of the meeting, and requested some remarks from the Secretary of the Club.

Mr. Meigs rose and said, that he had always taken a great interest in Long Island, which had its origin in his acquaintance with Dr. Mitchell, who had truly its welfare at heart. He spoke of the character of the island and its favorable location for the purposes of farming and gardening, and read numerous extracts from the Geological Survey of the State, showing that its formation is such as to remove every doubt as to the susceptibility of the lands in question being carried to a high state of cultivation. He advocated deep plowing, the application of special manures, a judicious system of rotation of crops, and condemned the ruinous practice of robbing the soil of all its products, without restoring in return even a straw.

Dr. Peck, of Jamaica, offered an opinion, that the only possible reason why such immense tracts remain uncultivated was an hereditary prejudice which had long existed against them, but which had been controverted by every reasonable experiment. Good crops of potatoes, buckwheat, and rye, he said, have been raised on these lands, by the ordinary modes of cultivation, and in some instances vegetables have been raised, which took the premium at the agricultural shows. He expressed a belief that the soil was naturally good, and can be rendered fruitful at a very small expense. He then referred to an early history in his possession, in which no mention is made of any portion of Long Island being barren. In that work, Hempstead Plains,

which now principally lie uncultivated, and are represented as wild and unproductive, were then described as the admiration of all who visited them, being covered with tall grass, and an abundance of wild flowers. The opinion that they are naturally unproductive, has originated since that time; but how it arose, he added, it was impossible to say.

Professor Renwick, of Columbia College, being called forward, remarked that he had been familiar with the plains of Long Island from his infancy, and that it had long been a question whether they could be rendered productive. Some years ago, he said, the subject was agitated, and samples of soil from Hempstead Plains were obtained, which, in being subjected to chemical analyses, were found to contain all the elements requisite to fertility. The reason these do not at present produce, he attributed to the inert condition of some of the materials of which they are composed, which might readily be brought into activity by the application of quick-lime, wood-ashes, or putrescent manures; but if the two former were applied alone, the land would soon become exhausted and run to waste. He concluded by saying, that land in other parts of the country, similar in every respect to that in question, which was considered by the early settlers as unfit for cultivation, has, on experiment, proved to be well adapted to the growth of wheat.

Dr. R. T. Underhill and Mr. James J. Mapes were then called upon to give their views in relation to the subject, whereupon they denied the well established fact that much of the valuable parts of manures leach downwards in porous soils by means of rains or melted snows, and contended that *every particle of all manures* has an upward tendency, finally escaping at the surface, or is taken up by plants. In support of this doctrine, they stated that in grave-yards vegetation is *always* rank, and when the soil is sandy or porous, the gases from dead bodies will rise from a depth of six feet, and exert an influence on the verdure at the surface.

Dr. U. disapproved of the mode of planting fish in the hill as is usually practised by Long Island farmers, in the cultivation of corn, and recommended them to be buried deep in the soil, in order that their effects might be longer and better felt (*a*).

Mr. M. made an attempt to explain the action of manures on soils, and the character and mode by which plants receive their food. One of the chief uses of manures, he said, was to lubricate the surfaces of the particles of the soil, in order to facilitate the upward movement of gases, and for the more ready admission of the atmosphere about the roots. All plants, he contended, derive their nutriment from the atmosphere, and not from the soil, in proof of which he referred to an air-plant he had seen growing on a wall (*b*).

The audience was also addressed by General Adoniram Chandler, Dr. Manly, and others from New York, which, for the want of more space, we regret to omit.

(*a*) We should judge that Dr. Underhill, from the manner he talks, knows little or nothing of the general principles which govern the most common operations of nature; and that not even his knowledge is guided by his own experience. He tells the

farmer to plant deep, in a leachy soil, one of the most soluble of manures, with a vain belief that in due time *every particle* will rise again to the surface, in the form of gases, and be attended with the best results! The fact that considerable portions of all putrescent manures rise towards the surface either in solution or in gas, to be taken up by plants, or dispersed in the air, is nothing new; but to say that no portion is ever fixed in the soil, or carried downwards by the dissolving effects of rains, would be as absurd as it is incorrect. Every truly practical and scientific man knows that water, as it ordinarily falls from the clouds, will absorb at least 500 times its volume of pure ammoniacal gas (one of the most valuable ingredients in our richest manures), and convey it to the ocean, unless it be arrested in its course, or become fixed on the way by charcoal, sulphate of lime (plaster), or by some other means. He is also aware that water is capable of taking up a large amount of carbonic acid gas, the chief food of all known plants, and that it will hold and retain in solution other organic matter, as well as nearly every fertilizing salt. For further information on these points, see the account of an interesting experiment by Mr. Wilson on page 292 of the present number, under the head of Solvent Action of Rain-Water on Soils.

The attempt to prove the upward tendency of manures by the effect of dead bodies on plants in grave-yards, of leachy soils, is fallacious; for numerous instances can be pointed out, of grave-yards of this description, where the vegetation is most feeble in its character, and in some cases will scarcely produce at all. A very good illustration of what is here said will be found in the large burial ground at Sag Harbor, which has been established in that place upwards of one hundred years.

(*b*) In these remarks by Mr. Mapes, there are involved misconceptions of fact, which might lead those not conversant with the subject to very wrong conclusions, and ultimately tend to pernicious results. The point at issue is, whether manures, as ordinarily applied, directly contribute in any degree, as the food of plants, or whether they merely serve to loosen the particles of the soil, in order that the gases of the atmosphere may the more readily circulate about the roots. If the latter were true, the mere mixture and frequent stirring of the soil, around the roots of the plants, as proposed by M. Kretschmar, of Germany, would be all that is requisite without the application of any manure; but unfortunately for his theory, on experiment, it did not succeed, as might have been foreseen; for but few of our cultivated plants will thrive without mineral food, held in solution by water, and taken in by their roots.

In corroboration of the fact that plants draw no small amount of mineral matter from the soil, we have only to state, that, from careful analyses, an average crop of wheat will remove something over 200 lbs. of mineral matter from an acre of land; and that an acre of good flax will rob the soil to the extent of 320 lbs.

How to PREPARE A SUPERB MUSTARD.—Take ground mustard 3 lbs.; common salt 1 lb.; and mix with vinegar, grape-juice, or white wine.

EXCURSION ON LONG ISLAND.

IT may not be known to many of our readers, that a belt of land running east and west nearly through the centre of Long Island, of an average width of 6 to 7 miles, and more than 40 miles long, and containing upwards of 150,000 acres, with the exception of a few scattered farms here and there, has been suffered to remain in its original uncultivated state ever since the settlement of this country. The reason of this is, the inhabitants of Long Island have taken it for granted, that it is too poor a quality of soil to be cultivated to advantage; hence that portion of the tract, which, like Hempstead Plains, was originally found without trees, has been turned out to pasture in wild common, while the other part, which was covered with a moderate growth of pine and oak, has been retained in forest, to be cut off for timber and fire-wood as the wants of its individual owners and the city of New York demanded. But since the opening of canals and railroads through the dense forests of the great West, and to the rich coal mines of Pennsylvania and Ohio, fire-wood has depreciated in price so much, that it is no longer an object to the Long-Islanders to send it to market. Thus this vast tract of land has become almost valueless to its owners.

For the past three or four years, more particularly, the possessors of this property have been making various experiments for the purpose of ascertaining if it could not be cleared and brought into profitable cultivation. With a view of assisting in this laudable movement, the Board of Agriculture of the American Institute, on the 4th of last month, invited nearly 200 persons to make an excursion through this tract as far as Greenport and Sag Harbor. The company was made up principally from the enterprising practical farmers of Long Island and its neighborhood, together with gentlemen from this city. An excellent railroad runs nearly the whole length of the Island, almost directly through this tract of land. It commences at the South Ferry, in Brooklyn, opposite New York, and terminates at Greenport, on Peconic Bay, a distance of 95 miles. This distance is usually run in the short space of four to five hours.

James H. Weeks, Esq., president of the railroad company, generously provided an extra train gratis for the special accommodation of the party. At nine o'clock, A. M., the signal was given to our fiery iron-horse to start, when, after a few preliminary snorts of his hot steam-breath, he cleared the depot at a single bound—dashed through the long, dark Brooklyn Tunnel in a twinkling, and then took up his swift career over the delightful open country, stopping at various stations to take up groups of gentlemen waiting to join the party.

At most of these stations the company got out with a view of examining the soil, and to take specimens for future analyses. Instead of being found, as many supposed, of a pure sandy formation, it proved to be more or less loamy and tolerably charged with vegetable matter. Patches of clearings have been made within the past five years every few miles on the whole of this route; and we noticed that wherever judiciously manured and cultivated, the crops were quite an average, and in many places very large. We shall hereafter give a brief account of these, together with hints at some

length as to the best methods of cultivating this soil. At present, these lands can be purchased in their wild state, with the wood taken off, at from \$3 to \$5 per acre—a marvellously low price when we consider their contiguity to the great city of New York, and the productive farms and gardens into which it would be so easy to transform them.

We arrived at Greenport at about five o'clock P. M., where we found excellent accommodations prepared at the various hotels for the whole party. At seven o'clock the company assembled at the Presbyterian Church, for the purpose of discussing the different qualities of the soils of the part of the island through which we had just passed, and the best means for their successful culture. The substance of the remarks made upon the occasion will be found on the preceding pages.

At eight o'clock the next morning the company took a steamboat and sailed up the picturesque bay of Shelter Island, twenty miles to Sag Harbor. Landing at this port, they divided into parties and strolled around for a few hours for the purpose of examining the country in the neighborhood. After this, we returned through Gardiner's Bay to Greenport, thus circumnavigating Shelter Island. Here we dined and then started for home, where we arrived at seven P. M. highly gratified with our excursion.

PAINTING CHEESE WITH SPANISH-BROWN.

Our friend Holmes, of the Maine Farmer, says he likes all our directions for making cheese, in the August number, except that at the end recommending the painting of the cheese with Spanish-brown and beer. We think upon reflection, he will not consider "that part as entirely useless," when he is reminded, that, without some kind of covering, cheeses, by long keeping, are generally found to become unpleasantly dry and to lose a portion of the delightful aromatic flavor so much relished by all lovers of good cheese. Besides, a thin covering on cheese is useful in preventing the absorption of moisture and pernicious gases, as well as for keeping off vermin and dirt. This covering only saturates the rind and not the body of the cheese, at all, and this is cut off when eaten and thrown away. We would condemn the use of annatto, as a pigment for coloring cheese, as it is frequently adulterated with red-lead, a dreadful poison, which has often caused great injury to the consumers of cheese, and is capable of even taking away life itself.

PUBLIC SALE OF MERINO AND SOUTH-DOWN SHEEP.—We wish our flock-masters to bear in mind, that the great sale of Col. Sherwood's choice flocks will be held at Auburn, September 8th. We can speak confidently of the merits of these animals, as we have personally inspected them, and have samples of the entire fleece in our possession, which for weight and fineness combined are seldom equalled. *Forty Head of Choice Short-Horned Cattle* and several superior grades are also to be sold at the same time and place.

SEASON FOR SELECTING SEED-CORN.—The farmer is reminded that the season is at hand for selecting seed-corn. The ears should be the second ripe in the field, with cobs having small butt-ends, well filled out, and two or more to each stalk.

CHOICE OF TREES AND SHRUBS FOR CITIES AND RURAL TOWNS.—No. 3.

I now proceed to give a general notice of the native trees that have been most planted in this country for the purpose of ornament and shade, and of the manner in which they have often been treated; also, to point out such others as appear to be best adapted to the objects in view.

Among the earliest trees, cultivated by our forefathers, as before remarked, the *American Elm* stands conspicuous, and has long been a great favorite, particularly in New England, where it is very generally employed as a shade-tree for lining avenues, highways, the planting of parks, &c., and as such, there are few, if any, more appropriate for these objects; and, as a picturesque tree in woodland scenes, it is rarely surpassed by any of its forest brethren, in point of beauty or in size. When standing in a wood, in a soil it loves, it naturally grows upright, and rises higher than the generality of other trees; and, when standing insulated and alone, in a newly-cleared field, with its top decayed and dead, save here and there a small tuft of leaves stretching forth its naked and withered arms, it forms a striking emblem of the aged patriarch, who has outlived all his fellows, and is a stranger in the land which gave him birth, in whom death is already struggling with life, and will soon gain the ascendancy. But when cultivated or grown in a pasture, or in the lawn standing in lonely majesty, towering to the height of a hundred feet, with its lowermost limbs diverging outwards and upwards, at a few yards above the ground, and afterwards dividing and subdividing into numerous smaller ramifications, and diffusing on all sides its pendulous branchlets, floating lightly in the air, it forms an object of dignity and grandeur. This tree, too, is among the first to salute the early spring with its light and cheerful green, which, though discordant at first with the gloomy hue of the pines and firs, partakes of a darker tint, as the season advances, and unites in harmony with their unchanged boughs. In autumn, also, before the nightly frosts and chilly winds have done their work, the bright golden foliage of the elm kindly mixes with the various hues of the poplar and the maples, which display all shades of red, from the deepest crimson to the brightest orange; a tint that contrasts agreeably at this season, with the pale-yellow, sober foliage of the birch and the beech, with the different shades of brown in the bass-wood and the ash, or with the buff yellow of the larch. The beech, the ash, and the larch, however, do not, in general, take much part in this gorgeous pageant. The ash is chiefly leafless at this time, and its glory has passed away before the other two have scarcely begun to fade. Indeed, "the glossy green of the beech is perhaps more effective than if it partook of the general change; and even the gloomy blackness of the resiniferous trees, by relieving and throwing forward the gayer tints, is not without effect." But, unfortunately, the foliage of this noble tree serves as food for several kinds of insects, or their larvæ, while its bark and wood are pierced by others for the purpose of making provision for their young. It is subject to but few diseases, however, and is not liable to any serious accidents, except in being

occasionally struck by lightning, or prostrated by violent winds.*

Next to the elm, the *Sugar-Maple* is accounted as the finest among our shade-trees; and, in good taste, has long been planted along streets and avenues, in pastures, and ornamental grounds, fine illustrations of which are manifest in the town of Stockbridge, Massachusetts, and in the beautiful village of Homer, in this State. This most noble and majestic tree, when growing in open situations, with ample room to spread on every side, where all the branches are exposed to the free action of light, is an object of great beauty. And it is no less beautiful in our forest or woodland scenes, in autumn, when it puts on its bright-orange and deep crimson robes. At first the extremities of the boughs alone change their color, leaving the internal and more sheltered parts still in their verdure, "which gives to the tree the effect of great depth of shade, and displays advantageously the light, lively coloring of the sprays." Later in the season, on the contrary, when the tints become more and more gorgeous, and the full beams of the sunshine fall upon the large masses of foliage, the warm and glowing colors of the whole summit possess a great deal of grandeur, and add much to the beauty and effect of the landscape. From the graceful and regular form of its summit, the rich verdure, and cleanliness of its foliage in summer, as well as in spring, the planting of this tree cannot be too highly recommended either for country or town.

The *Button-wood* (sycamore), from its wide geographical range, its rapidity of growth, and the facility with which it can be propagated, has been more universally planted, as a shade-tree, in the United States, than any other species. Gilpin, in speaking of this tree, says—"The Occidental plane has a very picturesque stem. It is smooth and of a light ash-color, and has the property of throwing off its bark in scales; thus naturally cleansing itself, at least its larger boughs, from moss and other parasitical encumbrances. This would be no recommendation of it in a picturesque light, if the removal of these encumbrances did not substitute a great beauty in their room. These scales are very irregular, falling off sometimes in one part, and sometimes in another; and, as the under bark is, immediately after its excoriation, of a lighter hue than the upper, it offers to the pencil those smart touches which have so much effect in painting. These flakes, however, would be more beautiful if they fell off in circular form, instead of a perpendicular one—they would correspond and unite better with the circular form of the bole. No tree forms a more pleasing shade than the Occidental plane. It is full-leaved; and its leaf is large, smooth, of fine texture, and seldom injured by insects."† If to these considerations we add the lofty height this tree attains, and the open character of its foliage, which admits the free passage of light and air, it is obvious that the button-wood, when associated with the willow, the ailanthus, the silver-leaved maple, or the elm, is an appropriate subject for lining avenues and public highways. Unfortunately for this tree, however, it has been severely

* Vide *Trees of America*, pp. 510 et seqq.

† *Forest Scenery*, 1, p. 63.

affected with a malady, for the last five years, from Maine to Virginia, which seems to have baffled all skill in attempting to investigate its cause, and which, at one time, seemed to threaten the total extinction of the race. The past year, however, the evil was less formidable, the branches put forth with more vigor, and it is generally believed that the malady is passing away.

The *Tulip-tree* (white-wood), like the occidental plane, occupies an extensive range, and has been successfully cultivated throughout the Atlantic States, for the purpose of ornament, from Newburyport, in Massachusetts, to St. Mary's, in Georgia, and west of the mountains beyond the Mississippi. When planted in a soil it loves, and where it has room to expand on all sides, next to the button-wood, it attains the amplest dimensions; while the perfect straightness and uniform diameter of the trunk, the more regular distribution of its branches, and the greater richness of its foliage and flowers, which are rarely attacked by any insect, give it a decided superiority over that tree. When grouped or associated with the willow, the ailanthus, the silver-leaved maple, or the elm, the tulip-tree forms a most desirable acquisition to parks and avenues, as well as to public highways. This tree, however, has but few fibrous roots, and consequently is somewhat difficult to be transplanted, unless a ball of earth is suffered to adhere to the roots, when removed.—*Transactions of the N. Y. State Ag. Soc.*

FARM-FENCING.

Good fences are among the most important constituents of the farm, and absolutely indispensable to well regulated agriculture in this country. But it is a serious question whether excessive fencing is not a prevailing fault with the American farmer, the *northern* ones at least. In stony districts, walls are made to a great extent, for a two-fold purpose; one to get rid of the surplus stones which encumber cultivation—the other to subdivide the enclosures into small compass for the convenience of *pasturage*, &c. For, in the division of grain and root-cropping, they are of little or no utility, as the extensive and highly cultivated bottom lands bordering many of our large rivers, where they cannot be maintained by reason of the annual freshets, will testify. The construction of new fences, and their annual support and repair, are a heavy and onerous tax to the farmer, and it therefore becomes a desideratum with every calculating man to what extent they shall be made. Mr. Biddle, in a late address to the Philadelphia Agricultural Society, estimates the annual cost of building and repairing fences in Pennsylvania alone, at upwards of \$3,000,000; at least one-half of which could advantageously be dispensed with. In New England, how many thousands of miles of stone wall are made for no other apparent purpose than to get rid of the stones, without adding at all to the utility or ornament of the farm? I venture to say, that at least one-half of the whole extent of the stone walls of New England might be advantageously dispensed with; or, by making the boundary and road fences of heavier and more durable character, fewer subdivisions would be required, and the enclosures all the better for profitable cultivation.

Good fencing, in excess, is not the prevailing

fault, for the character of American fences is generally deficient both in strength and durability. The *system* needs reform. In the stony districts of the United States, the walls are usually low and carelessly laid; often thrown down by frost, and frequently more a subject of annoyance than otherwise. Now, what should be done as a remedy? I answer, lay them deeper and broader at the base, where the material is abundant; at least, one or two feet below the surface of the ground should lie the foundation; and two and a half to three feet thick, gradually narrowing to a foot or eighteen inches at the top, and at least five feet high. Such walls as these will work up a world of stone, and divide the farm into convenient sized lots to some purpose. No ordinary grazing animal will scale them, and they will last a life-time at all events, and perhaps for centuries, according to the soil and climate. Besides the everlasting tax for repairs, the ordinary stone-wall is a perpetual harbor for vermin, which are destructive to the crops, and the nucleus for a nameless catalogue of noxious weeds and bushes, which every few years require the extirpating hand of the occupant. This of itself is no small tax, and when to these objections is added the loss of the land they occupy, where land is really worth anything, it becomes a serious matter.

Did it ever occur to the New England husbandman, in the stony regions, that his farm, be it good or bad, if he wants to sell it, in more than an average of cases, with all its improvements, will not bring him what the stone-walls and buildings upon it have cost at ordinary labor prices? Yet such, I venture to say, is the fact. Many, no doubt, will question it. Very well. Then make the calculation as the facts exist, and see for yourselves. The statement will not vary much from the truth. It may be asked what is the remedy? How are the various qualities and descriptions of our lands to be divided into "the usual proportions of plow-land, meadow, and pasture," as our farms on sale are usually described? This is, to be sure, a pithy, and rather pregnant question as a *general* one, and is only to be answered in a general way; that where draining and good cultivation are practised sufficiently, large tracts can be brought into one enclosure and render small subdivisions needless. These, however, are to be accommodated to the size of the estate, and must depend on circumstances. Sheep-farms require less fencing than almost any other, as a broad range is more healthy for them, and a great promoter of a good growth of fleece. Yet the price of land has so much to do with the subject, that the cultivator as proprietor must judge for himself, having in view constantly the main principles of security, durability, and economy.

When stone is wanting, rail and board fencing is also carried in many instances, to excess although the incentives to it are not so great as on stony soils—not in *quality*, but in *quantity*. The same objections exist to them in a degree that prevail with stone fences, save that of harboring vermin. The cheapest fence of all others, in a timber country, is the common worm, or Virginia rail enclosure, seven to nine, or ten rails high, as may be required, with a lock of two rails at each corner.

This is equally effective in holding the fence to its place as stakes; easier made, and more durable, as the stakes require re-setting by decay at the foot every five or six years. This worm-fence can be made from thirty to fifty cents a rod when timber is of little value, and will last from thirty to fifty years, according to the material of which it is composed. For this purpose, all the different kinds of oak, hickory, bass-wood, or linden, elm, white and black ash, or in fact, any other wood that will split, answers a good purpose. It is true this fence takes up some room; but its cheapness and durability amply compensate for that loss. It is not the handsomest fence in the world; but no matter—if properly laid, it looks well. Its utility is equal to any, except a good stone-wall, and that is the main chance for the farmer. Post and rail, and post and board fences are valuable, according to their cost and the worth of the land they enclose, and are more ornamental in appearance, and economical in the use of land than any other. With locust, or red cedar posts, at cheap rates, this fence exceeds any other; even better than hedges, which, I take, are hardly a practicable method in this country, where boundaries and subdivisions change so often, to say nothing of the ill success that has attended the efforts to cultivate them. Even in England, it is now seriously questioned whether the thorn-hedge is not greatly too abundant; an eminent agriculturist, in a recent essay, estimating that they occupy, in many districts, one-fifth of the soil!

But I must bring these remarks to a close. My object is to induce our farmers to reflect on a most important subject of their care. We need better fences, and in general fewer of them.

L. F. ALLEN.

Black Rock, N. Y. July, 1847.

AGRICULTURAL SURVEY OF WASHINGTON COUNTY.

DEAR SIR:—You have been selected to make an Agricultural Survey of the county of Washington—to collect accurate information in relation to the state of its agriculture, and every subject connected with it; to suggest means of improvement; and to make report with as much exactness as circumstances will admit.

I enclose you a plan of the proposed Survey, adopted by the Executive Committee of the N. Y. State Agricultural Society, which will direct your attention to such inquiries as are deemed most important. Your own experience will guide you in the fullness of examination and report under the various heads, some requiring from their importance much more extended notice than others.

The reports on Natural History, which have been prepared under the direction of the Legislature, will aid you materially in some branches of the survey, as many of the inquiries submitted can be answered probably through them, and without as minute personal examination as would otherwise have been necessary.

As this is the first Agricultural Survey which has been undertaken by the State Agricultural Society, and upon its successful result will depend whether the survey be continued in future years to other counties or not, it becomes of the highest im-

portance that the work should be done with such particularity and care, as will secure a complete and finished return. It is desirable that the survey, when completed, should be embraced in an octavo volume of some 200 pages—but this will depend in some measure upon the extent to which it may be lengthened by subjects of importance which may require particular notice.

The Executive Committee rely upon your ability to perform the work in a manner that will be creditable to the society, and so as to be an enduring monument to yourself in the future history of the Agriculture of the State. B. P. JOHNSON,

Secretary N. Y. State Ag. Society.

To ASA FITCH, M.D.

Albany, May 12th, 1847.

PROPOSED PLAN OF THE SURVEY.

1. Geographical and topographical description of the county.

2. Geological features, minerals and fossils, nature of the soil, distinguishing that composed of the "northern drifts," or of transported materials, from that produced from the rocks of the immediate neighborhood.

3. Length of time the soil has been under cultivation; the original growth of timber, and the time it was first cut off.

4. Date of the first settlement of the several parts of the county, and the origin and general character of the settlers.

5. Condition and progress of agriculture from the first settlement to the present time, showing what have been the improvements and causes which have produced them; what have been the staple crops, the mode of their cultivation, and as far as may be practicable, the actual profits of each, at different periods.

6. Present state of agriculture; the several crops cultivated, their respective yields and market value. Also, all industrial pursuits connected with farming, such as the manufacture of maple-sugar, how managed in its preparation, &c.

7. Adaptation of crops, as grains, grasses, and roots, to different soils; showing the arrangement which in this respect has been found by experience to be most judicious and profitable.

8. Fruits and fruit-trees; having particular reference to the adaptation of the various species to the different soils (mentioned under head No. 2), and how far the productiveness, health, or longevity of the trees is affected by the nature of the soil, &c.

9. Weeds and pernicious plants, describing those most injurious, whether indigenous or introduced, and giving the most approved modes for their eradication.

10. Insects, describing those which are prejudicial to the farmer, and noticing the most effectual means of preventing their ravages.

11. Implements, having regard to any peculiarity of construction, and noticing any improvements which may have been adopted in their form, mode of manufacture, or uses.

12. Live stock (horses, cattle, sheep, and swine); showing the numbers of each of these classes kept in the county, their diseases, and mode of curing them; the different breeds, and, as far as may be, the relative value of each for different purposes; the

relative value of horses and oxen for labor on the farm; and any facts in regard to the profits and most economical management of poultry of different kinds.

13. Feeding and fattening animals; having regard to the most profitable modes, and the relative value of different kinds of grain, roots, apples, pumpkins, grasses (both in their green and dry state), or any plants for feeding laboring animals (whether horses or oxen), milch-cows, or for fattening cattle, swine, or sheep.

14. Dairies and dairy produce; showing the quantity of butter and cheese produced, the quantity per cow, the best modes of making these articles, and the kind of pasture and food, as well as the general management, which is found most profitable.

15. Wool-growing; showing the number of sheep in the county, the breeds, the quantity of wool produced per head, the value per pound of the different kinds of wool, its preparation for sale, and where sold; the number of sheep pastured per acre, on different soils; time required for winter-feeding; quantity of hay required for carrying a given number of sheep through the winter; most economical mode of winter-feeding, whether with hay alone, or with any other fodder, and whether any, and what kinds of grain or roots, and in what quantities, and in what manner, are fed to sheep.

16. Manufactures; the kinds carried on in the county, their extent, and the effect they have had on the farming interest.

17. Examples of good management or success in farming.

18. General profits of farming; showing the returns for capital invested.

19. Education; the state of schools, and whether any instruction, having a particular reference to agriculture, is given in schools and academies, and with what success or advantage.

20. Suggestions for improving the condition of Agriculture.

21. Zoology of the county—at least a notice of those indigenous quadrupeds, birds, reptiles, fish, &c., that are serviceable or detrimental to man.

FARM OF MR. BELL.

THE farm occupied by Mr. Thomas Bell is situated in Morrisania, near this city, and comprises about 400 acres, being a part of the domain of William H. Morris, Esq. The present season 100 acres have been cropped with hay, 40 acres with Indian corn, 18 acres with wheat, 12 acres with oats, 6 acres with rye, 5 acres with turnips, 3 acres with potatoes, and 10 acres with corn, sown broadcast, or in drills, for soiling; the remainder lying in pasture or fallow. There are also on the place 25 acres of orchard, principally Newtown pippin trees, from which were sold last year 400 barrels of apples and 200 barrels of cider.

The stock of the farm consists of 75 cows, 52 of which give milk, two Durham bulls, 25 heifers, 6 working oxen, 6 horses for labor, 12 sheep of Bakewell or Leicester grade, and 50 or 60 hogs and pigs.

On the 16th of July last, the field crops all looked well, which was doubtless owing, in a great measure, to superior management. The wheat was in the act of harvesting, and bid fair to yield 25 or 30 bushels to the acre. It was grown on land that had remained in fallow for many years; that is, a

scanty pasture, interspersed with alders, dwarf cedars, wild grasses, &c. The ground was plowed twice in the summer of 1846, and previous to sowing, 25 loads of compost, made of swale or pond mud, mixed and fermented in the heap with barn-yard manure, were applied to each acre. The field, in which this wheat was grown, at present is in excellent condition for laying down to grass, or for the cultivation of almost any kind of crop.

The fields of Indian corn, in general, looked vigorous, dark-colored, and were just in tassel, although the land varied in character, and had been differently tilled. We were particularly struck with the vigor of one field of eight acres, to which had been applied broadcast, 400 loads, of 50 bushels each, of swale muck, mixed with 500 bushels of oyster-shell lime. Another field of six acres, which previously had been cropped with grain, was manured with coal-ashes, a pint to a hill, and looked well.

Mr. Bell practises the system of soiling in part, particularly with his milch-cows, and highly approves of the plan. He sells, upon an average, in this city, 500 quarts of milk per day, which amounts to more than \$7000 a year. From the milk of one cow alone, he realized \$530 in two years, notwithstanding she had a calf within the time, but was never dry.

Mr. Bell's bull is a thorough-bred Short-horn, imported from the celebrated herd of the late Earl Spencer. He is a superb animal, and has taken several prizes, as the first in his class, at the exhibitions of the New York State Agricultural Society and the American Institute.

Several of his cows are also thorough-bred Short-Horns; but most of his herd consists of high grades, a cross of his bull, Marius, with some of our best native stock. Of this cross, we observed 15 beautiful yearling heifers, of great promise, which were so docile that they could be approached and handled by any one who chose. This gentleness Mr. Bell attributes to the early attachment they acquired by bringing them up by hand when calves. The first three days following their birth they were allowed to suckle the cow, after which they were fed a few weeks on skim-milk, and then turned out to grass. This kind of treatment, no doubt, has a tendency to soften their dispositions, and greatly contributes to their gentleness when they come to be cows.

While looking at the herd, it was remarked by Mr. Bell, that every cow, without exception, which had broad *escutcheons*, or *curls*, formed by the meeting of the hair that points in different directions on the posterior parts of the animal, *wide apart*, were good milkers; but this proves nothing further than it goes, as his premium cow, Shaker, the best in the herd, has but a trifling development of this point, being the one from which he realized \$530 in two years by the sale of her milk.

Mr. Bell is evidently a thorough-bred farmer, which is manifest from the characteristic neatness and excellent management of every part of his farm. He superintends in person, and puts on record most of the operations of the dairy, the farm-yard, and of the field, and is up and doing from early dawn to late at night. He keeps an account of his receipts and expenditures, which, at the end of the year, it is highly desirable he should make known to the public.

B.

LETTERS FROM THE SOUTH.—No. 10.

FROM Plaquimine, where I again resumed my northern course to Baton Rouge, the formation of the banks, and the cultivation and general improvements, are similar to what is exhibited on the river below. There are the same substantial sugar-houses with their elevated chimneys; the generally tasteful cottage residence of the proprietor embowered in shrubbery, and the hamlet-like cluster of tenements for the laborers, with their stables, sheds, workshops, and other outbuildings, all of which are usually painted or whitewashed.

Though the number of shade-trees is less than is consistent either with taste or profit, yet they are sufficiently conspicuous to contribute greatly to the beauty of the prospect. The pecan is the most imposing and graceful, after the live oak, which is seldom a leading feature of the plantations on the Mississippi. This tree grows much like the largest of the sugar-maples of the north, but somewhat taller. The limbs commence about 15 feet from the ground, and extend to a nearly uniform distance outwardly from its upright trunk, presenting a dense, cylindrical mass of rich foliage, 50 feet in diameter by 80 to 90 feet in height. It is found in great abundance throughout most of the lower delta, and yields a nut resembling an oblong acorn, though of a larger size, with a thin shell and a flavor much like the shag-bark walnuts of the north, but less rich and oily. The pecan also abounds in Texas and Mexico, and though usually of smaller size, is said to bear a larger fruit. The pride-of-China, with its low but handsomely rounded top, having a profusion of lilac-shaped and colored blossoms whose odor they much resemble, with delicate, but rather thin foliage, is a favorite shade-tree throughout lower Louisiana. It is said to be liable to no diseases, grows rapidly, and harbors no insects; but in its general appearance it is far behind many of the native trees of this region. The sycamore, weeping willow, the *Morus multicaulis*, and some other trees, are not uncommon among the ornamental trees of the country, and add a pleasant variety to the scenery of this cultivated region. Where it grows on the river banks or in the open land, the cypress is a beautiful tree.

Baton Rouge is pleasantly situated on the left bank of the river, on the first high land above the Gulf, a distance by the course of the stream of 250 miles. It is the capital of the State, and contains the United States Arsenal, and some good schools. Port Hudson, 24 miles, and Bayou Sara, 34 miles above, are small depôts for the products and supplies of the rich and highly cultivated parishes of East and West Feliciana, on the east bank of the river. Fort Adams, on the same side, 250 miles above New Orleans, and about 18 above the lower outlet of Red River, at the mouth of Buffalo River, is the only other landing of consequence below Natchez. The last occupies the plain of a high bluff, not visible from the river, and is said to be handsomely laid out and well built, and contains about 6,000 inhabitants. It was settled about 1700. It is one of the oldest towns in the State, and is surrounded by a wealthy and intelligent agricultural population. Nowhere in the south has the cultivation of cotton been more successful than here. The brief stoppage of the boat allowed us to see

only that portion of it which formerly attained an unenviable notoriety among the flood-wood bipeds visiting it, under the cognomen of "Natchy under the hill." This has, however, been principally rebuilt within a few years, and is now rid of the disorderly populace that once predominated there.

Rodney and Grand Gulf above, are thriving villages, and the depôts for a rich back country, which is unsurpassed for the high state of cultivation of the cotton plant. It is this region that has brought the pure Mexican seed to the enviable reputation it enjoys under the name of *Gulf seed*. The imported seed is said to yield a small crop, but if carefully cultivated, and the imperfect seed thrown out, it produces much more abundantly in the subsequent crops, and of a better staple than any other seed excepting the sea island.

Vicksburg, 410 miles above New Orleans, is built on a precipice of the river. It is regularly laid out, and contains numerous brick stores and houses, rising in successive parallel streets above each other, till they surmount the highest point and stretch eastward on the undulating surface beyond. Though comparatively new, it is an active business place, and contains about the same population as Natchez. The natural surface is uninviting for a city, consisting of innumerable small conical hills, thrown together in the most irregular disjointed manner imaginable. Perpendicular excavations of 30 and even 50 feet are sometimes necessary to prepare the foundations for many of the buildings and secure a proper grade for the streets. The resolution manifested in encountering so rugged a spot, gives earnest of an enterprise on the part of its citizens, that is not likely to be damped in its career of improvement by slight obstacles.

A railroad extends from this place, 50 miles to Jackson, the capital, and will soon be completed 20 miles beyond. It has been built at great expense, through elevated hills and across deep ravines, and is substantially ironed with heavy rails, over which the cars pass at the rate of 20 miles an hour. I was much struck with the peculiar adhesiveness of the artificial banks about Vicksburg and along the route of the road. They are seldom excavated at an angle with a vertical line exceeding 10°, and I have seen them 30 feet high, within 10 feet of the road, that have maintained their perpendicularity for years, under the jar of the engines and heavy trains. This is the more surprising from the excessive tendency to wash, inherent in most of the uplands in this region, in which it much resembles parts of Virginia and the more Southern Atlantic States. To prevent this, the greatest skill is employed in circling the hills with the plow in such a manner as to keep the furrow perfectly level, and with the abrupt and ever varying acclivities, this necessarily produces a great deal of patchwork in cultivation. Even this excessive caution is often found unsuccessful in resisting the effects of rains, and many fields are already abandoned from the double effect of exhaustion and gullies. So great is this tendency, that an untilled surface with the slightest declivity, is often seen fretted into a perfect honey-comb with the petty gullies wrought upon it in every direction.

The soil on much of the uplands in Mississippi

is thin and readily exhausted by negligent cultivation; yet with careful management, they are good cotton lands, and will generally produce about 30 bushels of corn per acre. The lower and secondary bottom-lands on the Big Black and its numerous petty tributaries, are much more productive, though the former are subject to overflow and are only partially cultivated. Those who have examined it carefully, say that there is no lack of lime in the soil; and that an abundance of shells are found at a depth of 100 feet below the surface. But the fact that this earth when spread upon the soil acts as an efficient manure, would seem to prove that the surface has not a full supply of lime; unless it can be shown that this earth contains the phosphates, potash, or some of the other fertilizers to an appreciable extent. The Muscadine grape, the papaw, the magnolia, and several varieties of the Chickasaw plum abound in this part of the State.

Our destination was the plantation of Dr. Philips, seven miles from the dépôt, which we reached on horseback through a well timbered country of undulating surface. We found the Doctor among his crops of corn and cotton, which were looking finely under his judicious management. Those on the uplands, though not as luxuriant as on his lower fields, give promise of a liberal yield. He thinks these fields have been improved at least 20 per cent, under his rigid system of rotation and plowing in the stalks and other vegetable matters grown upon the soil. He alternates corn with cotton, and occasionally oats and rye. These are generally fed off on the ground.

The southern rye, which is generally used south of Virginia, tillers much more abundantly than the northern, a single grain sending up a large mass of shoots, which yield a luxuriant pasture through the winter, and ripens some 15 or 20 bushels per acre fit for the sickle early in June. The only oats that fill out a plump berry in this region, is the Egyptian. In the delta further south, many planters assure me that their oat-crop is generally a failure, producing nothing but light straw; while those who have raised the pure Egyptian, say that they have never failed in securing a well developed grain. This is an important item for such planters as have to resort to the flat-boats of the upper Mississippi for their supply of horse-feed. But Dr. P. much prefers the rye to the Egyptian oat as green food for stock, thinking the latter hardly worth attention for this purpose.

His main dependence for animal feed, like that of most planters throughout the South, is on the corn-crop; and with this he invariably sows the cow-pea, after the corn has been sufficiently worked. It grows slowly under the shade of the corn; but when this has ripened, the pea shoots up with great luxuriance, and covers the whole surface of ground and stalks. The corn and a portion of the blades and peas are gathered by hand, when the stock is put upon the field for a while to gather what they choose, and the remainder of the entire vegetable growth is carefully turned under. This is the system pursued by the best planters, so far as I have witnessed, throughout the entire South, wherever soils require renovation.

Dr. P. says that red clover, if sown in the fall, will mature a large crop the following spring; but

as it is in the way of early planted crops, its cultivation has not been introduced to any extent. He showed me specimens of the Gama and Guinea grasses, both of which were flourishing in great luxuriance. The former is a coarse reedy grass, with a tough, harsh leaf; but he assures me that cattle and horses feed upon it with great avidity, and will, if permitted, eat it so closely into the ground, as to cause its speedy destruction. The Guinea grass is equally luxuriant, and in addition to its numerous tender and succulent leaves, it throws up flowering stalks, which Dr. P. says do not mature their seed. Its roots are tuberous, large, and prolific, and are much relished by sheep and swine. This appears to be identical with that shown me last fall, by Dr. Bachman, of Charleston, who commends it as a stock-sustaining plant beyond any other grown in the South.

There is a species of yellow-flowering clover, that is sometimes abundant and prolific. Dr. P. had selected for me specimens of this, two feet in length, which, he says, is only of medium size. This is a plant highly relished by sheep, but cattle are not partial to it—at least this is the experience in Europe. The Bermuda and crab-grasses flourish here whenever there is a full exposure to the sun. Both are valuable grasses, and make excellent hay, though some give a decided preference to the first as being most nutritious.

But what is most peculiar on this plantation are the large orchards of peach, apple, and pear-trees which seemed in the highest vigor and health. Dr. P. has been indefatigable in collecting a great variety of the choicest kinds of fruit, which are already making large returns for the attention and care bestowed upon them. He adopts the system of permitting the tops to branch as low down and as profusely as nature dictates, thereby securing a more effectual shade to the soil under the fierce blaze of a southern sun; and he is satisfied that this practice is the best he can adopt for the latitude. It is a question whether thinning the upper branches, and especially of the apples, may not be attended with benefit.

One of the prettiest hedges I have yet seen in the south, is the *wild-peach*, which partially surrounds the lawn. This is found in great abundance in the neighboring forest. When placed within 2 or 3 feet of each other in a hedge-row and closely trimmed, it gives a strong stalk of 3 to 5 inches in diameter, which is closely set with a perfect network of stiff branches.

I could not but admire the taste which has placed the domicile in a natural bower of forest shade-trees. The sloping grounds on either side prevent the accumulation of stagnant water, while the heat of the climate effectually prevents any injurious effects from dampness. The birds are encouraged to nestle among the branches and rear their young, and we could count a dozen nests of the mocking-bird, oriole, nonpareil, turtle-dove, &c., from the balcony.

The cotton plant is late this season, owing to the long continued cold weather. It has however a healthy appearance, and there is every reason to anticipate a fair yield. The particulars of its cultivation have been so often given in the Agriculturist, that it would be superfluous to repeat them.

"Will the caterpillar appear again this season

and what are the causes and remedies," are questions often and eagerly agitated by the planters. That the cotton caterpillar, like nearly every insect which at times brings such widespread devastation on such plants, fruits, or trees, as are the peculiar objects of its attack, is indigenous to the country, and has always existed with the crop to a greater or less extent, is now generally conceded by intelligent observers. Long cultivation of the same plant on the same fields, an unprecedented continuation of hot, moist weather, and perhaps an unusual absence of the feathered tribe, or a superabundance of other and more tempting food, and other causes, may have combined to develop the insect last season to an extent never before known; and though we may look for their continuance hereafter much beyond their numbers generally observed heretofore, yet we have every reason to conclude from analogy or experience, that with a close attention to their habits and characteristics, and an intelligent and rigid system of culture designed to counteract their baneful effects, their ravages hereafter may be confined within comparatively narrow limits.

Selection of the best, most vigorous, and hardy seed; a fine state of pulverization and good condition of the soil, by which its rapid growth is secured; thorough cultivation; encouraging the birds to visit the fields, are all means which should not be overlooked. A hardy, thrifty plant, may resist an attack that would be fatal under other circumstances. Dr. P. adopts the system of thin sowing, using but 2 to 4 pecks of seed to the acre, instead of 3 to 5 bushels as is sometimes done. By this he secures a more rapid and natural (not an artificial hot-bed) growth, and the plant is thus more capable of resisting disease or attack of any kind. One gentleman in Mississippi informed me that by the improved cultivation he secured from the use of the subsoil plow, he averaged 4 bales to the hand, while his neighbors obtained only 1½ bales. Other causes might have contributed to this difference, but neither he nor they could detect any, except in the use of this implement. That birds should be able to extirpate the army of worms as they appeared last year is not to be supposed; but they might perhaps, in a single day of the preceding season, have destroyed every ancestor of this horde.

It was with much regret that from a want of time I was compelled to forego, for the present, my own inclinations and numerous urgent invitations to visit other sections of this highly favored agricultural State.

R. L. ALLEN.

Vicksburg, Miss., June 2d, 1847.

TETHERING STOCK.

For several years I have had the tether in successful operation, and consider that its value is equal, if not superior, to many cross fences. As early in the spring as the grass will afford a good bite, the animals are taken to the most desirable places, where they are safely confined, and if the grass is sufficiently abundant, once a day is often enough to remove them; but if necessary, they may be removed oftener. As soon in the fall as the corn is sufficiently matured, I commence cutting and shocking as much as will serve the tethered stock for two or three days, and so continue to cut and shock, or if preferable, cart it to the crib.

The advantages of this mode are very great, as the horses can luxuriate on the finest and the most nutritious crab-grass, which, if not otherwise consumed, would be destroyed by the frost, and which, in our cold, stiff lands, it is needless to turn under for manure without lime, or some other application to hasten its decay. I consider this grass an injury rather than a benefit when turned under in a dry state, as it serves as a nest for vermin, or worms, instead of manure. I find another great advantage resulting from this mode of feeding, is, that the stock nearly clear the field, which saves the almost endless task of weeding up the grass and vines before we begin to plow for putting in our grain, thereby enabling us to sow a month earlier at least.

My experience has shown me that a chain, or rope, does not answer so well for a tether as two light poles; for at times, the animal is liable to get it entangled around the hind fetlock, and sometimes badly injures himself in that way. My mode of making a tether, is, to take two poles, say from two to two and a half inches in diameter, one twelve and the other about eight feet in length, which I couple together by means of a swivel. Through each of the extreme ends of the poles a hole is bored, and an open ring inserted in such a manner as will not allow them to become unloosed. The ring attached to the end of the longest pole serves to confine the animal to a stake, or pin, driven into the ground, and the one at the end of the short pole admits a halter, rope, or chain, about three and a half feet long, for confining the animal by the neck or horns. If the halter or chain be longer than three and a half feet the horse is liable to get it around his hind legs and injure himself—if it be short, this is impossible. In a day or two, the animal will learn to move the poles around the circle by pushing them with his nose, and if he get it between his legs he will soon learn to step over them and clear himself from harm; but should his jaws or nose become chafed, this may be prevented by putting a wide strap of soft leather over them.

J. B. MARSH.
Beaufort, N. C., June, 1847.

LONG ISLAND FARMING.

SUPPOSING that it will be interesting to many of your readers to know what kind of farmers we are, and what system we pursue on Long Island, I will give you a description of some of our best managed farms, and the manner of cultivating them. I shall commence with Lloyd's Neck, as that has long been celebrated for good land, and equally good farming. It contains about 3000 acres, and is entirely detached from the main land, except by a narrow strip of sand-beach, which is sometimes covered at very high tides. It has Cold Spring Bay on the west, the Sound on the north, Huntington Bay on the east, and Lloyd's Harbor on the south, which divides it from the main island. It is rolling and undulating, and in some places hilly, and is from 30 to 100 feet higher than the Sound. The scenery about the Neck at this season of the year is beautiful. Its geographical position gives it some splendid water prospects, particularly from the high bluffs at the west end of the Neck, at the north and northeast. We there see the bold and rugged hills

of Connecticut, in full view, dotted with villages and farm houses, and almost at our feet, we have the Sound with its bright waves sparkling in the sun-beams, and whitened by sails of the innumerable craft that plow its waters. Casting the eye to the southward, over Centre Island, we see the pleasant village of Syosset (formerly Oyster Bay), with its white houses, peering out amidst green trees and verdant fields, contrasting beautifully with the high and densely-wooded hills, which rise directly behind it. Turning the eye still more to the south we see Cold Spring Bay, a beautiful sheet of water, and catch a glimpse of a little village, bearing the same name, lying snugly ensconced among the green hills by which it is surrounded.

Lloyd's Neck is divided into four farms, the soil of which varies from a strong loam to a bright sand. It is heaviest at the west end of the Neck, and as you proceed to the eastward it becomes lighter; but the principal portion of that cultivated, is a rich, dark, sandy loam, with far less gravel in it than any land on the main island. The soil is naturally rich and fertile, which is evident from the rapid growth of timber it contains. It is estimated that a thousand cords of wood have been sold a year from it since the revolutionary war, when it was entirely stripped of its trees by the British army. The amount of woodland does not exceed 4,890 acres. The most westerly farm is the largest, and is generally thought to be the best. It contains about 1,200 acres, 500 of which are under cultivation. It was very highly improved under the excellent management of its late owner, J. N. Lloyd, Esq., since whose death it has been cultivated by Mr. Brewster Conklin. The rotation of crops pursued by him, is the same as that practised on Long Island generally, which may be described as follows:—

1. *Indian Corn.*—This is generally raised by plowing up sod-land in the spring, harrowing down smoothly, and then checking it off into hills four feet apart by means of a heavy sled, drawn by two horses. The manure is fine, well rotted, and is put into the hills. As soon as the corn is up, so that the rows can be well seen, the plows are started, throwing the dirt from the corn, and running as deep as they can be made to go with a good strong horse. The plowings are repeated three or four times previous to the commencement of hay-time, throwing the earth at each time towards the corn. The number of acres cultivated per annum varies from fifty-five to sixty, each of which yields fifty or sixty bushels. The stalks are usually topped and the corn husked from the hills.

2. *Oats.*—These are sowed without any manure and yield about thirty-five to forty bushels per acre.

3. *Wheat.*—As soon as the oat-crop is taken off, the land is plowed, carefully turning under the stubble, and manured at the rate of twenty or thirty loads to the acre. Barn-yard manure is applied as far as it will go, and the deficit is made up by stable-manure from the city of New York. Leached ashes are sometimes used; but when applied too often they cease to benefit the land as they formerly did. (a) Timothy-seed is sown with the wheat in the fall, and clover in the spring. The average yield of the wheat is about twenty bushels to the acre.

4. *Grass and Hay.*—The land is kept in Timothy

and clover, being mowed or pastured three or four years, and then planted again with Indian corn.

The cattle and sheep on this, as well as on the other farms of the Neck, are only common breeds of the country, but they are kept in fine condition, with good pasture in summer, and ample food and shelter in winter.

The next farm east, is not quite so large, and the soil is rather more light. It has been rented and cultivated about thirty years, by Mr. Conklin Gould, having been much improved under his management. His system of cultivation is nearly the same as that of Mr. Conklin; but his grain-crops are not quite so heavy.

The next farm in order, towards the east, is much smaller, containing about 200 acres, a little more than half of which is under cultivation, belongs to Dr. A. H. Stevens, of New York, and is cultivated by Mr. James Velson. The soil is similar in quality to the eastern part of Mr. Gould's farm, to which it joins. The system of cropping is the same as that of the other two farms. It has been highly improved by the purchase of large quantities of ashes and stable-manure, and probably yields fully equal to either of the others.

The easternmost farm of all is owned and cultivated by Mr. Samuel Denton, and contains 800 acres, about 200 of which, are under cultivation. Its soil is lighter than that of the other farms, and was formerly considered very poor; but, from the free use of ashes and New York stable-manure, with the good management of Mr. Denton, it has been rendered quite productive, though not equal to the other farms.

To each of the above farms there is attached a quantity of salt-marsh, from which considerable quantities of salt hay and sedge are annually mowed, that answer the double purpose of salt and food for the stock. Some sea-weed is also obtained from the shores, which makes excellent litter for the cattle and hogs, and helps to swell the manure-heap.

Mr. Gould keeps a seine and catches a considerable quantity of fish, which make most excellent manure. They are frequently applied by plowing in, to the growing corn; and no finer turnips can be raised than by plowing under in the month of June, a coat of fish just from the water, and letting them lie and decompose until the time of sowing the seed. Many farmers, who use fish for manure, think they have a tendency to produce sorrel; but of this I am not certain.

Lloyd's Neck has long been considered as the place of model farming, and to approve and practise the farming of "Lloyd's Neck" has long been considered as good authority enough for pursuing any system or the treatment of any crop; but some of our neighbors of the Neck are disputing the palm with them, and deservedly so, if they have not so good a soil. In another communication I intend to say something on this point.

G. P. LEWIS.

Huntington, June 29th, 1847.

(a) Our readers will bear in mind that quick-lime or wood-ashes constantly applied to land will deprive it of its humus or vegetable matter and render it unproductive, unless it be annually supplied with muck, barn-yard, or street manure.

A SHEEP-BARN.

Description of a Sheep-Barn by Joshua B. Chapin, Providence, R. I.—No. 1. A, represents the main building or store-house—of the following dimensions: length 45 feet, width 34 feet, height to the eaves 16 feet.

The front internal arrangement is shown by suspending this end open.

B, B, are grain-bins for convenience of daily distribution. They are 3½ feet wide, 12 feet long, 3 feet deep in front, and 3 feet 8 inches at the back, with one or more divisions. The bins are placed in lobbies that lead, from either side to the sheep-folds. At the farther end of the main building on the left is a granary (not shown in the drawing) 12 by 15 feet and 8 feet high. Adjoining this may be constructed a wool room of like dimensions; and over these two rooms, as well as over the lobbies, are spaces for depositing the straw of the different grains.

The space at the right, C, C, beyond the lobby, and occupying the entire remainder of that side of the barn, forms a capacious bay for the deposit of clover, hay, &c.

The width of the lobbies, including the bins, is 7½ feet. The width of the main floor is 10 feet. Under this, and descended to by a trap-door, is the cellar, capable of containing 2,500 bushels of roots.

It is intended that the main floor be used for the operations of cutting or otherwise preparing the food, shearing, &c. The entrance at each end is the same. The barn will contain from 60 to 80 tons of hay, and 2000 bushels of grain.

On the right and left of the main building are two wings, E, E, which are the sheep-barns. These are 75 feet long (they may be longer or shorter according to the number of sheep desired to feed), 25 feet wide, and 6 feet high at the eaves, and will amply accommodate 400 or 500 sheep.

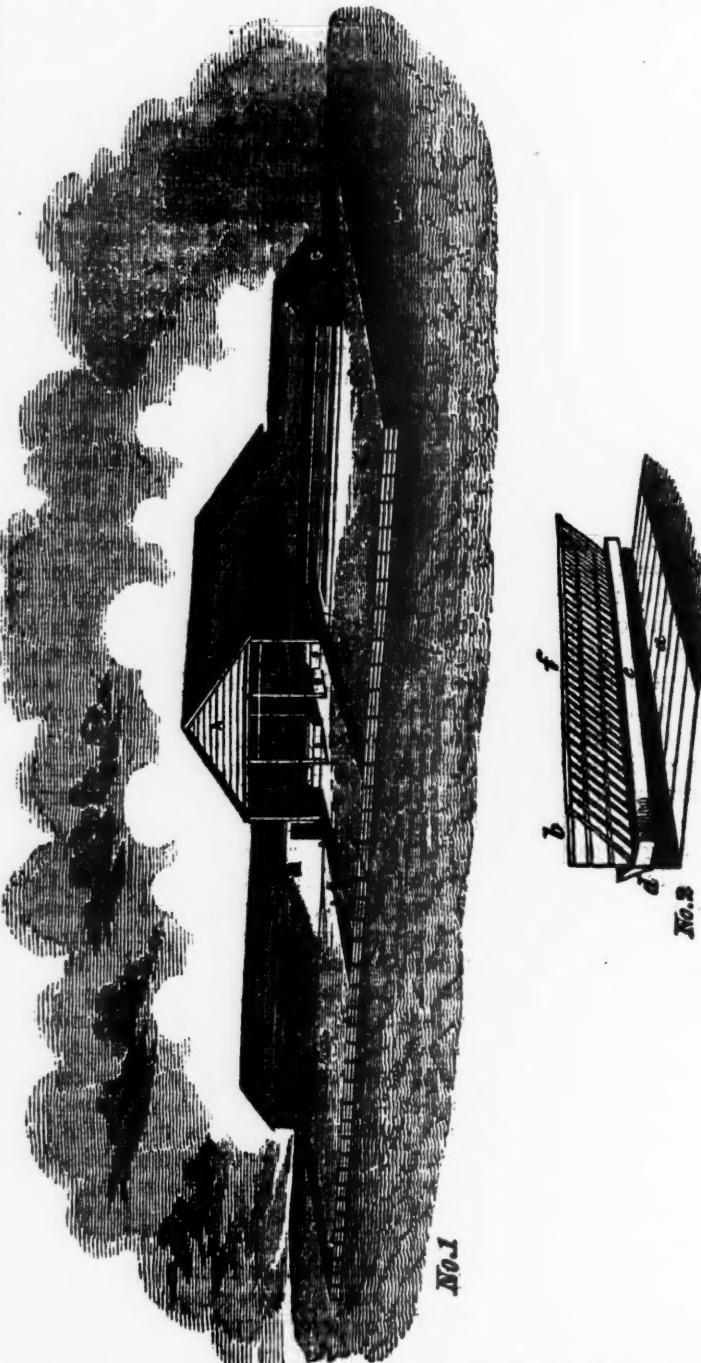
F, F, are the racks, which pass all around the folds, with the exception of an entrance at either ends; the one for the ingress and egress of the sheep to the yards, the others for the convenience of the shepherd. Between the racks and the outer walls of the fold is a passage-way, of 2½ feet in width, passing all around, the floor of which extends under the racks, and four feet beyond them, into the fold proper. This is designed for the sheep to stand upon while feeding—by this plan they eat better and waste less. The platform is elevated about 8 inches above the ground—(represented in the drawing by the shaded part).

The windows, hinged shutters, and doors, are sufficiently well shown in the drawing. The shutters should be kept open, except during storms, and severe cold weather. No animal suffers

sooner or more seriously from imperfect ventilation than the sheep. Allowing a fold on either side of the main barn, admits of a division of the flock, which is of much consequence.

The disposition of the yards is also shown by the drawing. Racks and open sheds may be arranged around these if desirable.

A small house may be attached, and a division



SHEEP BARN.—FIG. 66

yard made at the outward end of either fold, say at G, for diseased sheep. At H, is a pump.

No. 2 is an enlarged view of the rack, f, &c.; a is the platform spoken of above, b is the back of the rack, c the feeding trough in front, d the feeding hopper to the trough.—*Morrell's Am. Shepherd.*

PLANTS with small leaves derive most of their nourishment through their roots, while those with many large leaves receive a considerable proportion of their food from the atmosphere.

SHOW AT SARATOGA.

We would remind our readers that all those who intend to compete for the premiums at the approaching Fair of the New York State Agricultural Society, to be held at Saratoga Springs, should have their animals and articles on the ground, without fail, on Monday the 13th of September, so that they may be arranged and in readiness for examination by the judges on Tuesday morning.

All members of the Society, or any who may become such at the time of the Fair, by the payment of \$1, will be furnished with badges, which will admit himself, wife, and children under twenty-one years of age during the exhibition. Tickets for a single person 12½ cents. All stock and articles for exhibition will be transported on the railroads free of charge. Fare of visitors, on railroads, half the usual prices. Board at the Springs from 75 cents to \$2 per day.

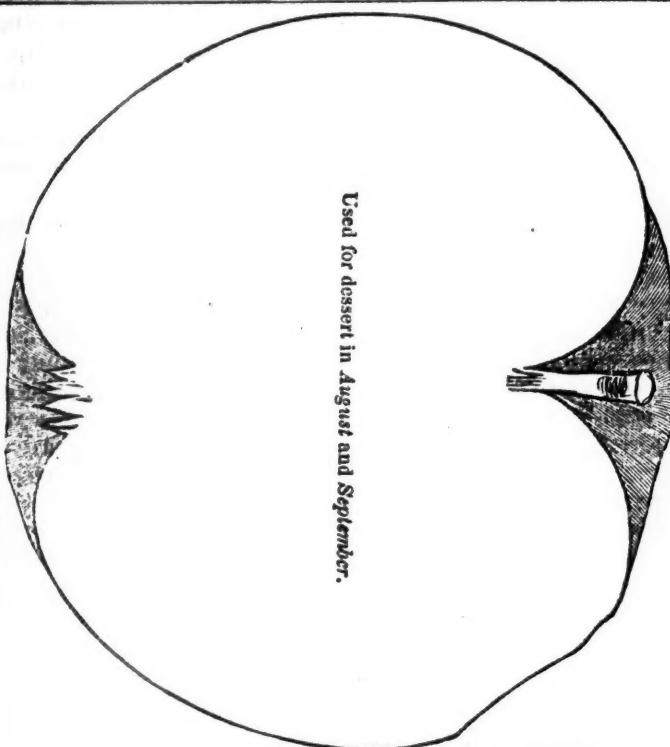
CHOICE SUMMER-APPLES.

SUMMER-QUEEN.—This is described by Landreth as a distinct variety from the one long known around Philadelphia by the name of Early Queen. It is of full medium size, the outline in some specimens rather longer than broad, the blossom-end occasionally quite pointed. Skin yellow, clouded and striped with red, so much so, in some instances, as to obscure the ground-color. Flesh yellow, rich, and aromatic. Stem long, deeply planted. Ripe in August, but fit for cooking in July. Coxe describes it as an apple of the finest quality, and of uncommonly beautiful appearance. It is certainly a superior dessert-fruit, of a sprightly aroma, and is agreeable to most palates.

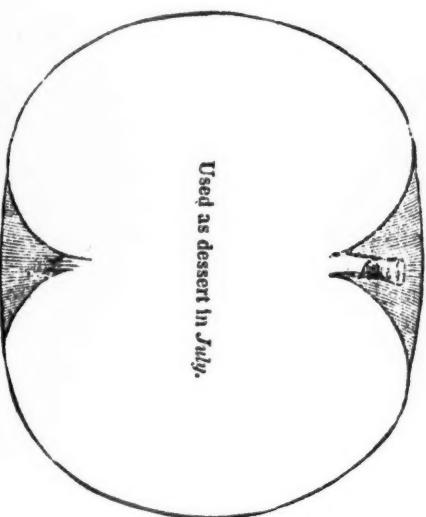
WOOLMAN'S HARVEST-APPLE.—This apple, which is sometimes known by the name of *Striped Harvest* is of obscure origin. Landreth says that he has not found it described by any American authority. The size is much below medium, weighing scarcely two ounces. Ground-color, a delicate whitish-yellow, beautifully streaked and pencilled with bright-red of different depths, giving it rather an artificial aspect, as though an artist had colored it to his fancy. Flesh white, crisp and tender, juicy, but not rich. Its early maturity commends it to notice.

EARLY BOUGH-APPLE.—This variety is frequently above medium size. Its outline is rather longer than broad, with a stem rising to the crown of the fruit. Skin smooth, of a pale-yellow hue. Flesh white, with more than ordinary juice, sweet, and well-flavored, though by no means rich. It is of fair quality, and from its early maturity it is generally esteemed.

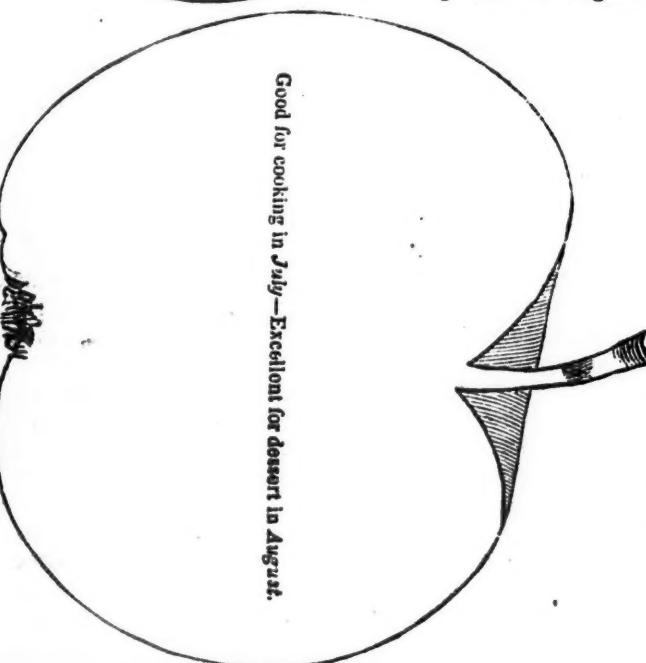
TO DESTROY MOSS ON FRUIT-TREES.—The fruit-trees in old orchards, especially in situations where they do not grow kindly, are very apt to have the branches and trunks covered with lichens or moss, which does them considerable injury. This moss may be cleared off in several ways; but one of the simplest, and a very effectual one, is, to sprinkle the trees well with dry wood-ashes while they are damp or wet by dew or rain. If this be repeated, in a short time, the trees will be effectually cleared.



EARLY BOUGH-APPLE.—FIG. 67.



WOOLMAN'S HARVEST.—FIG. 68



SUMMER QUEEN.—FIG. 69.

REVIEW OF THE APRIL NO. OF THE AGRICULTURIST.

I HOPE my review for March was sufficiently condensed to meet your limited space. I hope to be able to keep this within bounds. But the fact is every number contains so many articles, that it is difficult to pass over them lightly or without any notice. But to proceed—I must first notice one line in the leading article of this April No. on the

Culture of Horse-Radish.—Many of your readers will at first be led to believe that the depth ("2½ feet"), which you direct the roots to be planted, must be a mistake, and that inches instead of feet is meant. But although I have never tried it, I believe you are correct. Other authors direct the same depth. I think there is no mistake. Let it be tried as you direct.

Farm of General Johnson.—“This is said to be the only farm on Long Island remaining in the same family.” This I don’t understand. Do you mean to say it is the only farm in possession of the family descendants of the original proprietor? [No; but the only one that has not been more or less divided among heirs.] You say “he raises no ordinary field-crops, except for his own consumption.” Can ordinary field-crops be cultivated on land that will rent for \$30 per acre? [Perhaps not except on extraordinary occasions. But General Johnson chooses to raise his own family supplies. His desire is not so much to make money as to live easily and comfortably.] If so, then cultivators of the great Western Prairies, should grow rich—particularly as they need no manure.

In describing this farm you should have told your readers what was the nature of the soil. [A light loam with a considerable quantity of loose stone in it.]

It appears strange to me that cultivators of land in the vicinity of New York city should continue to prefer street-manure when so many fertilizing substances could be obtained in a more condensed form. The waste of the glue-manufactories mentioned in another article, for instance.

Lard-Lamps—The best that I have ever used are Arthur’s of Philadelphia. He should subscribe to the Agriculturist for this puff. I don’t like to dispute your correspondent, but I must say that “any kind of lamps will” not “do as well.” I wish somebody would construct a table for the Agriculturist that would show us at a glance which is the most economical light, at given prices of tallow, lard, oil, and as many other substances as he pleases.

On Manures, No. 3.—Judge Beatty says, corn is sometimes cut up and hauled off of the cultivatable land, and fed upon woodland, &c., where all the manure is lost. He might have said that the wasteful practice was one of the most common ones in Kentucky. And so far as I have observed, similar practices prevail in all the Southwestern States. And nothing but necessity will ever work a change. Such men never read. Five or six agricultural papers have been started in Kentucky, but how could they live in a community where more than half the cultivators pursue practices that tend constantly to waste the soil, instead of improving it. How are you to reach the minds of men who do not read? One great error in all the West and South, is owing to having too much land. And here in the Let-

ters from the South, No. 5, is an apt illustration of the “too-much-land” system. For it seems that within a few miles of the city of Augusta, on the navigable Savannah River, some of the most fertile land in the world is lying a waste wilderness of tangled vines. And this land too, was once cultivated; or perhaps more truly the virgin purity of its luxuriant soil was wasted, by some of that numerous class who “take no thought of the morrow.” Ah! how peculiarly characteristic of Southern farming are those “numerous herds of cattle and swine” “out to pasture” in those tangled thickets. R. L. A. remarks upon the Southern custom of turning out land to rest, after exhausting its fertility. Probably the land above noticed was “turned out” and got “astray,” and has never been “taken up” again. It is most truly to be hoped, that the example of improvement made by Gov. Hammond, and other eminent men, will have an influence throughout all that region.

Sumach.—Are your readers at the North aware that this shrub grows at the South into a tree so large that it is split up into rails? Such in truth is the case to a large extent, on the Yazoo River in Mississippi. I have also seen sumach rails in other places.

The Horse, No. 4.—I cannot pass this article without commending it to the attention of every reader of this paper. If any have passed it by, I would earnestly recommend them, if they have any desire to study the comparative anatomy of this most noble animal, and excellent servant of man, to turn back and read it with careful attention.

The Marl District of Virginia, comprises that portion of the State which lies between the Chesapeake Bay and the falls of the rivers that empty into it.

This paragraph conveys no intelligence to the general reader. How great a portion of the State is included—Indefiniteness is a great fault of many writers.

This article should have given the boundaries of the marl district so that any reader could trace it upon the map, particularly as we are told at the close of it, that not more than one-third of it has yet been cleared of the native forest. I have no doubt of the value of the marl as a fertilizer, and if it would be more valuable in some cases to use quick-lime, it is easily made from the marl. The manner of doing it is, to mould the marl into the form of bricks, and set them in a kiln and burn them in the same way. This writer recommends lime to the farmers of New Jersey and Long Island. Upon a purely sandy soil, it must be used in moderation, or the result will be mortar. But in any soil, to depend upon marl or lime to enrich it, will prove futile, without grass. The Dutch maxim quoted by this writer is the only true one for those to follow who would keep up the fertility of their soil. *Grass is the great thing* See page 78 of present volume for a valuable editorial article on lime.

The “desire to introduce Northern farmers,” will do but little good, unless Virginia farmers themselves will adopt the system of Northern farming. But comparatively few Northern farmers will ever settle in a country that is acknowledgedly so unhealthy that they must “leave their farms some two or three months in a year to the management of an overseer.” If they did, they would soon contract

the same do-nothing habits of the present population. The truth is, the present population must themselves put shoulder to the wheel, before calling upon Hercules. Their minds must be enlightened upon the subject of improvements in agriculture.

This can only be done by reading good publications upon this subject. How should they be induced to do it? Who will answer? Several editors of Southern agricultural papers will answer—that they have tried and found the spirit lacking.

Mount Airy Agricultural College.—I do most sincerely hope that this project of Mr. Gowen will succeed. And as we know that he has the means, and is also possessed of a character noted for great energy and perseverance, I believe that he is more likely to succeed than any of his predecessors in the same cause. And if he does, his name will be immortalized among the list of great benefactors of his adopted country. A much better disposition will he make of his wealth, than did Stephen Girard; inasmuch as he proposes to try the experiment while he is here himself to direct and control it. I have not the least doubt but the required number of pupils will be offered at once. The location is one of the most delightful ones in the vicinity of Philadelphia. [It is with deep mortification we inform Reviewer, that this noble offer of Mr. Gowen's has come to naught from mere apathy on the part of the public. Had he proposed some scheme by which Mexicans could be killed by our armies with twice the ease that it is now done, he would have been overrun with applicants in less than one week.]

Letters from the South, No. 6.—This is a valuable number, for the historical sketch of Louisiana, and the statistical tables given. The speculation as to the future advancement of New Orleans, I must notice slightly. And first—"It is the only capital that can ever be established for an extensive region of fertile country immediately surrounding it," &c. If Mr. Allen means by the expression, "immediately surrounding it," the lower part of Louisiana; I answer that that portion of the State will never contain "a dense population," until want of room upon all the vast regions of the West compels the children of generations in a very remote futurity, to reclaim the swamps and lagoons of that part of the State for cultivation. If he means by the term "immediately surrounding" all that vast country that now finds easy access to the New Orleans market, then I beg to know why he says that no other rival can be established. There are those who think that the new capital at Baton Rouge can be made to rival the old capital. And certainly there are several points on the river between New Orleans and Natchez upon which the persevering spirit of Yankee character could, and if they should undertake, would build a rival that would render the present proud city of New Orleans, as comparatively insignificant as is now the "ancient capital of Louisiana" when compared with the present one. Besides, what effect will be produced upon the trade of New Orleans, when the Mississippi River is intersected by three great Eastern Railroads? One from Natchez, through the heart of Mississippi, Alabama, Georgia, South Carolina, and onward to all the great markets of the East. Another, the completion of which is near at hand, will connect St. Louis with Baltimore direct, and only two days

apart. A third will unlock the icy barriers of the North; for within ten years, a car loaded in mid winter at Galena, will be delivered four days after in Boston or New York. And while ice does impede the outlet of the produce of the upper Mississippi and all its great inlets, during winter, and snags and sawyers at all seasons (which our government will not remove), these great roads will be kept open, and the produce of all the contiguous country will find an Eastern market. It only needs Eastern men to see how easily they can cut off a vast amount of the trade of New Orleans, by these roads as they will immediately be built. This they can do, but live at New Orleans they cannot do without risk of life. It is this risk that makes the extravagant prices noticed in the notes to the article under review. And while the same risk continues, similar prices will prevail, which, added to the fact that much of the produce received at New Orleans, finally finds an Eastern market, after a long and dangerous sea-voyage, will enable these great railroads to become very formidable rivals.*

Review of the October No. Reviewed.—I am made to say by a slip of the pen or a miss of the type, that "butter is thoroughly spoiled in warm weather by washing it in cold water." I never meant to say that. And every one who has ever eaten Dutch butter in good old Holland, can never think that cold water will injure butter. The very nature of the article is sufficient to show that cold water cannot injure it.

Mr. Norton's Letters, No. 4.—I little thought when I wrote my review of Letters from the South No. 4, in which I barely alluded to the system of management of the dykes and canals of Holland, that your readers were so soon to be furnished with such an interesting article upon this subject, as they are by this letter of Mr. Norton's. And I repeat, that until just such a perfect system as the *Waterstaat* of Holland, is established upon the lower Mississippi and its branches, vast tracts of the country never can be cultivated. Individual enterprise can do wonders; but neither it, nor the imperfect levée system of Louisiana can ever set bounds to the mighty flood that rolls its torrent into the ocean through the Mississippi. Speaking of the Rhine, Mr. Norton says; "the bottom of this river, is in many places, above the adjacent land," &c. I predict the same result for the Mississippi, if the practice continues to prevail of shutting up all the outlets but the main one. Already has immense labor been spent, which, for want of system, some subsequent improvements have rendered useless. For instance, the extensive levees around Lake Concordia, an old bed of the river opposite Natchez.

A California Farmer.—Now what are all these thousands of oxen, horses, mules, sheep, and hogs worth? It certainly looks like extensive farming, on paper. And yet I suppose there are many of our New York farmers, who could sell out for more cash than this Californian, who counts his cattle by the thousand.

Ladies' Department.—A feather-house, I like very well, as described by E. S. But I like those

* Up to the year 1723, the "ancient capital of Louisiana," was at Biloxi Bay, which is now, merely a little French village of the same name, to be found on the sea-coast of Mississippi.

"farmers' daughters" with their "plain cotton gowns, check aprons, and those neatest, prettiest, whitest little caps," better than all the rest. Won't the man who gets one of them "feather his nest?"

To Cure Herring.—Short, straight-forward, and to the point. Let those who wish a recipe turn back and read again.

Boys' Department.—E. S., says, "a quarter of a pound of rice boiled slowly, will yield more than a pound of solid nutritious food." This is not quite plain enough for the understanding of boys. How, they will ask, can a quarter of a pound of rice, which at first is only "solid food," be made into four quarters by simply boiling it? I will explain—one pint of rice, mixed with three pints of water and brought to the boiling point, in about eight minutes will have absorbed all the water, except what has evaporated—wasted in steam. But still it will not weigh four fold, nor has the water been converted into "nutritious food." But by softening the rice, and mixing it with the water, that which uncooked was a hard dry substance, has become nutritious; though I cannot see how it has increased four fold in its weight, although it will approximate toward it.

Oats.—If oat-meal is "a light, wholesome diet for sick persons," why not for healthy ones? If we should eat more of this food of "poor persons," and horses, should we be so much tormented with dyspepsia? [We should not; and it is not only one of the most healthy articles of food but also one of the most nutritious.]

Value of Hoofs and Horns of Cattle.—What immense quantities of these articles are thrown away entirely, all over the United States. Not only the hoofs and horns, but the entire heads and feet, and tails of all butchered cattle, at the West, are nearly all thrown away. And I have myself seen wagon-loads of hogs' feet and heads thrown into the Ohio River at Cincinnati. And in that region who ever saves bones?

Substitute for Potatoes.—Is it not advisable that premiums should be offered for the best substitute for potatoes? If there is no other cultivated root that can compare with this invaluable vegetable, who is to say that no other can be found? What was the potato before cultivation made it what it now is? The original is supposed to have been a wild growing plant of America; and less than 300 years ago was unknown in Europe. In 1663, the Royal Society of England recommended an extension of its culture, as a means of preventing famine. Little thought had they then, that the culture would become so universal; that a failure in the crop would cause the fearful famine that has prevailed during the last year among the millions whose ancestors, only 200 years ago, had never tasted a potato. Only 230 years ago, the steward of the queen's household in London, purchased a very small quantity of "that newe and rare plante, called potatoe," as a kind of rarity for the Queen's table, at "two shilling (45 cents), the pounds."

Concentrated Gravy of Meat.—Can this article be manufactured in this country? I believe it is a fact that sheep have been slaughtered in several places in the United States for their "hides and tallow." Could not the article above noticed, be also made at the same time? And are not cattle

now reared in Texas so cheaply that their meat might advantageously be made into "concentrated gravy"? And now speaking of concentration reminds me that it is high time that I should concentrate one-third of the number of letters in the alphabet into the name of

REVIEWER.

RELATIVE MERITS OF THE STRAWBERRY.

PRELIMINARY to a more full exposition of the relative merits of the different varieties of the strawberry, I will now, as some guidance to those who are desirous of forming plantations, name such as the full experience of years has proved, should be *summarily rejected*, and also some that may be permanently adopted for their *certainty of crops*. The great improvements made in the character of this fruit have now rendered it necessary, that very many of the older varieties which have been hitherto held in esteem for want of better, and which, although in most cases possessing good flavor, are miserably unproductive, should give place to those which produce abundant crops, and possess other estimable properties.

As a general rule the English varieties, which have been from time to time so much vaunted are not at all comparable to the new American ones, or even to those found in a natural state in our woods and prairies, and with but few exceptions they are destined to be banished from our gardens; and will no doubt be displaced even in England by the superior varieties which will be sent from America.

Soil.—The soil should be stiff and not sandy, and should be dug and pulverized to the depth of 18 inches; it cannot be made too rich. Old rotten manure should be plentifully intermixed throughout the whole depth.

REJECTED VARIETIES,

all of which are staminate with more or less fertile pistils.

British Queen, Black Musk Hautbois, Corse's Seedling, Downtown, Elton, Melon, Myatt's Eliza, Myatt's Pine, Old Pine, Royal Scarlet, Southborough, all worthless for barrenness.

Swainstone Seedling, worthless for barrenness, and foliage burns up in summer.

Deptford Pine, foliage burns up in summer.

Roseberry, or Aberdeen, small, poor crop.

Keen's Seedling, and Ross' Phœnix, medium size and half crop.

Garnestone Scarlet, fine flavor, poor crop.

Duke of Kent's Scarlet, prolific, insignificant, useless.

Bishop's Orange, the dark-red variety, so called, is erroneous; the true is orange scarlet, very productive and valuable.

Bayne's Extra Early, Common Hautbois (English), Faulkner's Scarlet Pine, Navin's Scarlet, Old Scarlet, Victoria, Belle d'Orleans, Warren's Seedling, Dundee, Lafayette, La Grange, Pine Apple, and Stoddard's Washington are synomyms of others enumerated.

TWENTY ESTIMABLE VARIETIES.

1. Large Early Scarlet, prolific (s)
2. Alice Maude; very large, fair crop, early (s)
3. Primordian; amazingly productive, large, beautiful bright scarlet, the most valuable early variety (P).

4. Abyssinian Prince; large, very dark, productive (P).
5. Black Prince; large, very dark, productive (P).
6. Bishop's Seedling; medium, orange scarlet, very productive (P).
7. Boston Pine; large, fair crop in rich soils (s).
8. Buist's Prize; very large, showy, fair crop (s).
9. Crimson Cone; exceedingly productive, large, beautiful color (P).
10. Crimson Pine; large, fine flavor, very productive (s and P).
11. Eberlein; large, productive (P).
12. Hovey's Seedling; very large, very productive (P).
13. Hudson; large, very productive (s and P).
14. Iowa; orange scarlet, large, productive (s).
15. Lizzie Randolph; same size, and more productive than Hovey's Seedling (P).
16. Necked Pine; scarlet, large remarkably productive, peculiar form (P).
17. Primate; very large, deep scarlet, splendid, very productive (s).
18. Prince Albert; very large, beautiful, fair crop, requires rich soil (s).
19. Taylor's Seedling; long-oval, scarlet, very productive (P).
20. Unique; large, very oblong, light scarlet, excellent, productive (s).

Mr. Burr's five Ohio varieties have fruited with me and promise well; three of them are pistillate varieties.

* * Those with an (s) affixed are stamineate; and those with a (P) are pistillate. WM. R. PRINCE.
Flushing, L. I., July 7th, 1847.

WHEAT EXPERIMENTS.

SOME of the numerous readers of the Agriculturist perhaps, may be entertained in reading a statement of the result of some of the different varieties of wheat that I have under cultivation, testing their different qualities as to hardiness and productive qualities. The ground selected for growing them is a gravelly loam, with a little sand intermixed. The plot was selected from a level field prepared for wheat, on the south side of a stone fence, three feet high, with two boards on the top; in all five feet high.

On the 18th of September, I sowed the different varieties in drills, twenty inches apart, running from the fence four rods. The wheat was covered from one to two inches deep, the ground being in good condition to bring it up.

The varieties employed may be briefly described as follows:—

No. 1.—*Wilkshire Bald*, from England two years; not hardy, only a few scattering stools in each drill, with large heads that made their appearance eight days after the common varieties.

No. 2.—*Sandoming Bald*, from Germany three years; about half of the drills near the fence stood well, the other half being about half winter-killed, their heads appearing with common varieties.

No. 3.—*Chatham Bald*, from England two years; one-third of the drills next to the fence stood well, the other two-thirds being somewhat injured by the winter. Heads large and well filled. They made their appearance with the common varieties, but are not hardy.

No. 4.—*Newsvoy Bald*, from England. This variety appears nearly the same as the Chatham, but not so much injured by the winter. Bids fair to give a good return.

No. 5.—*Alabama Bald*, two years from Cincinnati, Ohio; one-third of the drills near the fence being somewhat injured by the winter. The remainder of the drills have but a few scattering stools. This variety much resembles the Virginia May Bald, heading at the same time, and in many respects the same.

No. 6.—*Virginia May Bald*, from Virginia ten years. This variety has not become acclimated, nearly one-half having been destroyed by the winter. It heads one week before the common varieties.

No. 7.—*White Provence Bald*, from France eight years. This was somewhat injured by the winter, and heads three days before the common varieties. It has proved valuable for late sowing for several years past, but it has not done so well this season.

No. 8.—*Crate Wheat, Bearded*; cultivated in this section for many years. The drills were the same at one end as the other; stands the climate well. The long stiff beards are objectionable.

No. 9.—*Wheatland Red-Bald*, from the Virginia May; heads with it; nearly one-half winter-killed.

No. 10.—*English Red-Chaff, Bald*. One-half of the drill near the wall stood well, the other half, having but a few scattering stools was winter-killed. It heads the same as the common varieties.

No. 11.—From Oregon last year; a beautiful white berry, very plump, and not one kernel of it vegetated.

No. 12.—*Tuscan Bearded*, from Tuscany ten years. This variety had a few scattering stools in the drills, the winter being too severe for it. One week later than the common varieties; heads large; berry large and white.

No. 13.—*Etruscan*, from the Patent Office; a very few stools were left, the winter being too hard for it.

No. 14.—*Talevara Bald*; from England eight years; more than half winter-killed; heads large, and appeared six days after the common varieties.

No. 15.—*Mummy Wheat, Bald*, from England two years; mostly winter-killed; a few stools that put out large heads, were very late.

No. 16.—*Mediterranean, Bearded*, sown four years; somewhat injured by the winter; straw short with small sharp heads.

No. 17.—*Improved White Flint*. This valuable variety has stood against all the ills affecting the many other varieties. The drills were full from one end to the other, producing a good return. I am confident it is the most valuable of any of the varieties that I have tested.

No. 18.—*Tauland Bald*, three years from England; a few stools with large heads; nine-tenths winter-killed.

No. 19.—*Botany Bay, Bearded*, sown two years. This appears much like the Kentucky White Beard, being hardy; stands very well in the drills. The stiff beards are objectionable.

No. 20.—*Hutchinson or Kentucky White Beard*; the description of No. 19 will answer for this.

No. 21.—*Anguierre Spanish, Bearded*, and im-

ported by Mr. Townsend, of Albany, three years ago. It was somewhat injured by the winter. Straw and heads short, berry large and white. It does not appear to be suitable for this latitude.

No. 22.—One drill of thirty varieties mixed with the Improved White Flint. They were grown together for three years. They now stand well and are more than half of S. P. W. Flint.

No. 23.—One drill of twenty-five new varieties mixed with the S. P. W. Flint. This drill stood somewhat scattering. I wish to see which variety will predominate and whether they will produce a new variety.

No. 24.—*Orange*, from Virginia.

No. 25.—*Blue Stem*, from Virginia.

No. 26.—*White Bald*, from Virginia.

No. 27.—*Virginia Red-Chaff*. These four varieties are two years from Virginia; and were somewhat injured by the winter.

No. 28.—*Zimmerman's Bald Wheat*, from Maryland two years. Straw and head short, and not valuable here.

No. 29.—*Scotch Club, Bald*, from Ohio, much resembling No. 28; both varieties heading five days before the common varieties. On a strong soil they might do well.

R. HARMON, JR.



FIG. 70.

two legs containing the steps are firmly put together and do not require to be spread any farther apart. The other leg is united at the top by means of a swivel or hinge, which admits of its being moved out at the bottom as may be necessary for the situation in which it is to be used.

ARTILLERY VERSUS AGRICULTURE.

In a short excursion made for the first time to West Point a few days since, I was highly gratified with the taste, liberality, and good judgment displayed in all the arrangements provided for the education and comfort of the future soldiers of the country. The site is one of the most beautiful, commanding, and healthful in the Union. A plain of table-land jutting into the Hudson, affords an uninterrupted view of some 15 miles on the most magnificent river in the world, covered with its floating steam and sail craft. Bold elevations hem it in upon the west, on the nearest of which, is old Fort Putnam, and still higher and more remote the remains of two other ancient redoubts, that flanked the first, while the Revolution demanded its occupation and defence. On all sides the mountains go towering up heavenward till the eye is tired of gazing on their misty tops, while around on every

side, the fertile vallies and modest matronly villages seem to rejoice in the protection of the lordly hills.

The Point itself, embracing some 100 acres out of nearly 3,000 which the government owns, is tastefully laid out in groves and open fields, with walks and avenues threading them at proper intervals in all directions. Seven or eight large, solid structures built at great expense, and filled with every thing necessary give aid to the youthful mind, or comfort to his personal wants while in the pursuit of knowledge; and around them are commodious and pleasant abodes for those who minister to their acquirements or necessities. Some thirty professors and their aids stand ready to pour military instruction into minds just opening upon manhood; and \$400 per annum is allowed by government for each of the 250 students there for the purpose of providing liberally for every want. A large band of choice musicians is in attendance to lend enchantment to the scene, and awaken a proper enthusiasm on all occasions. Scientific apparatus, libraries, cannon, powder, balls, swords, epaulets and feathers are all carefully provided for the future heroes. Not a shoe tie is wanting, not a button or thread out of place. All is as punctiliously arranged as a bridal party or a court presentment. And all this is well. It is befitting this age and nation; and if we must have military establishments, and if still we talk of war and especially if we make it, it is entirely proper and consistent that we thoroughly educate a class of officers, capable of leading and rendering more efficient, the coarser materials of an army that is destined to deal destruction on what we term our foes.

The propriety of a similar provision for our naval establishments is equally obvious and equally regarded, by our rulers. They have secured for the nations use whether for offensive or defensive war, a formidable list of seventy-fours, frigates, steamers, &c., magnificently appointed with every improvement of death and devastation, from the terrific Peace-Maker and dreaded Paixhan, which will send their destructive shots several miles distance, down to the light revolving pistol, almost as destructive when near at hand. While we are at peace, about \$8,000,000 annually suffice to sustain these arms of our national honor and defence; but it is computed by some wise heads, that \$50,000,000 per annum will hardly come up to the sum necessary to sustain them while teaching the audacious Mexicans that they cannot dispute our will with impunity. Thus much for artillery.

But how fares it in the meantime with agriculture? Agriculture occupies three-fourths of the entire population of the United States, and constitutes an equal proportion of its wealth. Agriculture furnishes bread and meat, vegetables, fruits, horses, cattle, &c., not only for our own nation but for a vast population abroad. Indeed, it is probable that our gratuitous agriculture saved as much human life in foreign lands last season as our artillery destroyed, and at an expenditure of one per cent on the cost of the latter; while the total sales abroad of the surplus of the former would about offset the expense of one year's expenditure of our present military establishments. Agriculture too is in its infancy, and needs aid and encouragement, while

war has had its masters and proficients from its first professors, Cain and Nimrod, to the military chieftains of the present day. Gifted minds they have been too, adepts in the art, skilful and apt to teach; and so successful have been their efforts that they have monopolized nearly all the glory of every passing age. Surely then, agriculture, which occupies so many hands, pays so large a portion of the nation's taxes, confers so large benefits, that has been so much neglected, and is yet so weak and puny while artillery is so rampant and strong, surely agriculture must command some distinguished patronage and support from a government self-dubbed "the most enlightened on earth." But softly, gentle readers, you are getting in advance of our national government; the history of the present day records no such policy as this. Turn over the folios of our national statutes, and you will find the record of no such law. Consult the files of Executive State Papers, and since the days of the illustrious Washington, you will hardly find the subject alluded to. Peruse the speeches of our legislative Solons, and you will discover they have wasted no time on this subject. Not one penny of the \$30,000,000 of our national revenue annually collected from the pockets of our farmers, has ever been appropriated to the endowment of an Agricultural College, or the promotion of the agricultural education of our youth during the whole 50 years our present national government has had an existence. Even demagogues and pot-house politicians do not deem it necessary to talk to "Bunkum" in this view; they wisely scorn to consider it even good "gammon." Other subjects are abundant, that will much better repay the expenditure of bad breath and windy nothings; the theme of agriculture and attention to its progress or advancement is not popular enough even with its own millions of self-considered, intelligent delvers, to be deemed worthy a passing thought. How much less then should it receive the munificent appropriations so unhesitatingly accorded to a military academy, or even one ship of war out of a hundred! Yet farmers support the army and navy, nor do they ask their representatives when they return from a session's carousal, what they have done for the interest of agriculture? Continue, most sagacious deputies, to lay on the burdens upon the backs of your sapient constituency—the benefits are reserved for a more discreet generation.

JACQUES.

We have hesitated in inserting the preceding home thrusts at our farmers from our melancholy friend. On reflection, however, we think they need some strong provocatives to action for their own interests, and therefore conclude to lay it within their reach.

HOW TO MAKE POTATO-YEAST.—Boil in their skins, three large potatoes; drain off the water, and let them remain in the pot until they have done steaming. Then peel and beat them light, adding a table spoonful of clean brown sugar, as much wheat flour, a teaspoonful of salt, and a teacupfull of good rising; beat this mixture until quite smooth, and then pour in three pints of boiling water; set it in a warm place, and in a short time it will be fit for use, having risen to a fine white froth.

PROFESSOR NORTON'S LETTERS.—No. 6.

A FEW days since I visited the Landbouw Cabinet, in this city, a species of Agricultural Museum, where are collected the implements actually employed in the various provinces of the Netherlands in agricultural operations. Here are a few implements from England and other countries, but far the greater part are Dutch. I took a few notes at the time, and will endeavor to describe some of the things which seemed to me most worthy of attention.

One feature in this museum was certainly very excellent; that is, all of the implements used in any particular branch of husbandry were kept strictly together, so that at one glance I saw everything connected with any subject of peculiar interest. The first two rooms contained only implements engaged in the actual preparation of the land for the reception of the seed, such as plows, cultivators, harrows, rollers, &c. The plows were nearly all of most singular and awkward construction. The Hohen-sheimshe, improved from Germany, was the only one which resembled the best English or American plows. The mold-boards were almost invariably of wood, and sometimes not even covered with sheet-iron. Each province has its own peculiar model; one, I think, that was from Friesland, had the mold-board rounded *outwards*, and very badly rounded too. I am at a loss to conceive how any man in his senses could construct such a machine. The Zealand sand-plow had a broad flange running along the lower edge of the mold-board, intended I suppose to prevent it from going too deep in a light sandy soil. Another Zealand plow had a cast-iron point and mold-board in one piece, fixed in the middle of the beam; directly behind it was another, but set about six inches lower, so as to go in the bottom of the furrow made by the first. For a large improved plow of this description a very handsome premium has lately been obtained. Such an implement might do well in very light soils, but in a stiff one, a very great force would be required to work it. The beam of one plow was raised and depressed by a sort of pulley. There was only one double-mold-board plow intended to throw the furrows all the same way. In this case, the plowman would have to stop at the end of each furrow and go forward to turn the wooden board into its place. There was an interval of an inch or two between the mold-board, and the point. The subsoil-plows were English, also the cultivators. Some machines from Germany to be employed in the potato culture were wonderfully clumsy, being tied together by ropes. Each province has its own shape for a spade; the edges of some being rounded *outwards*, some *inwards*, some are pointed and others are half wood, the lower part only being covered with iron. There is a particular kind of spade employed in cutting peat from the bogs. The harrows were very good, though not equal to our best, with the teeth in nearly all of them sloping forward.

The best sowing-machines were English. There was a very good hand-tin, for sowing seeds in drills. The body was like a large inverted tin-canister, with a long spout leading from the lower end, on the extremity of which fitted six or eight little cones, one over the other, having orifices gradually increasing in size so that at last they would pass

beet-seeds, or Indian corn. These were to be removed or added according to the size of the seed.

There were various threshing machines, but I saw nothing which seemed like a new principle. An assortment of flails hanging at one end of the room exceeded anything that I ever saw for clumsiness. Two or three of them were made from one crooked stick. The scythes were nearly as bad, the blades being about three feet long, almost entirely straight, and immensely thick. It must be very difficult to mow with such awkward tools. To my great surprise I discovered among them an American cradle for grain. It is too expeditious a tool for the laborers here, whose object, in too many cases, seems to be to do as little as possible in the course of a day. The slowness and inefficiency of mechanics is a universal source of complaint; but after all they only follow the general spirit of the nation at present. It is to be hoped that the Netherlands may shake off that apathy which has gradually settled down upon everything, and renew the vigor of their former days. The commencement now making in the improvement of their agriculture is one of the most important steps towards such an end. Some agricultural schools have already commenced.

Last week I attended the second annual congress of those interested and engaged in agriculture. It was held at Arnheim, the capital of the province of Guelderland, and continued three days. Several hundred persons were present, and much information was collected. One peculiarity I noticed, as perhaps worthy of adoption in our State meetings. The chairman, soon after the meeting opened, called upon gentlemen from the various provinces to report each, the state and the prospects of the crops in his own district. In this way, and in a few moments, information was obtained from every part of the country upon points most interesting to all of the farming community.

But I have strayed from the agricultural museum. I had however in addition only to notice collections of tools used in transplanting trees, and of all the apparatus used in dairies; this department was interesting, but contained nothing specially new. The hand-tools are almost all extremely awkward when compared with ours, both in shape and finish.

JOHN P. NORTON.

Utrecht, June 9th, 1847.

How to Fry Fish.—A correspondent to one of our exchanges, writing from northern New York, on his way to Ogdensburg, tells how fish should be fried; and we think he is in the right. It seems he breakfasted on trout, at a stopping place called Beekmantown, west of Plattsburgh.

He says the practice there is to put the fish into the fat while the fat is boiling hot; and there should always be fat enough for the fish to float. If the fish is put into cool fat, or what is not boiling hot, it absorbs all the fat and is not fit to eat. If the fish is put into shallow fat it falls to the bottom of the pan and burns, adhering so close that it cannot be taken out without breaking in pieces.

Fried fish should be cooked quick, and trouts, or smelts, cooked well, will have no bones to trouble the munker.

MANAGEMENT OF HONEY-BEES—No. 12.

THE question now arises, how shall we remove our bees from old to new hives, in order to obviate the difficulty attending breeding in cells too old to answer the greatest degree of prosperity. Mr. Allen's plan (See p. 147, of the current volume), of placing empty hives under full ones that require such a change, and then closing the entrances of the full hives, and compelling the bees to descend through apertures in the tops of the empty hives in which the bees construct fresh combs, for a new habitation, appears to be a very reasonable way of surmounting the difficulty in question; yet there are evils connected with this system, that must cause its practice, for any considerable series of years, to prove highly detrimental to that perfect success that I consider attainable in all cases, where bee-pasturage is good or even fair. Every person who has kept bees on the storifying plan, must have noticed, that the bees construct their combs in the houses, in the chambers, without any regard to form or shape; but apparently, having no other object, but that of storing the greatest possible quantity of honey in the space allotted them. The respective size of drone and work-cells, that is, their hexagonal shape, is *never* varied, being in every hive in existence, of precisely the same diameter; but the length of these cells is varied from a quarter of an inch to three inches. These deep cells are entirely unfit for general breeding; hence we find the broad combs, in the permanent domicil of the bees, to be of a uniform thickness, and built at regular distances with the utmost regularity. Now, in all extra room afforded the bees, unless it be of such a nature as to allow them to construct new combs in continuation of those already built, they have a tendency to run into store-combs. This difference is rather greater in *supering* than in *collateral boxes*, or *nadirings*. Mr. Allen's plan is what is termed *nadirings*. When the bees find themselves thus nadired by an empty box, with a hole through the top, say four inches square, more or less, through which they pass down to obtain egress, they look upon this unexpected additional room in the light of a *store-room*, and in their labors here, that natural instinct, that teaches them to construct their permanent works with such astonishing architectural exactness, is much less manifest.

The space allotted in every hive for drone-cells, may in such cases be entirely disregarded, as a superabundance of these cells may be built, should the flowers be very prolific in honey, as for rapid gathering; drone-cells are often built for surplus honey, being more rapidly constructed, and holding more honey in the same area of inches, than ordinary cells. Should there be no drone-cells built below, or more built than usual, or should the combs vary at all from those constructed by bees, on entering a new hive for the first time, the consequences would be fatal sooner or later; hence, I consider this plan as extremely hazardous, and entirely at variance with the laws of nature, governing the honey-bee, and in my opinion, they should never be compelled to occupy any quarters that they have not expressly built as a permanent abode. When this lower box, or hive, is filled and the upper one is removed to some "dark place, or cellar, with a small light in it," for the purpose of

having the bees remove to the lower box, the top of which is now closed, what certainty have we of the safety of the queen? In general, the queen would be in the old hive, or at least she might be there on its removal; and as the queen never goes out of the hive but *once*, and then for a purpose connected with her own fertility, how is she to be transferred to the new habitation? She would not do it voluntarily, as other bees that daily sally forth, and if the new habitation contain no larvae from which the workers may produce a new sovereign, as before described by me, their ruin is certain. The result of such a state of things would be apparent on the following spring. The bees would have dwindled away greatly in numbers, and no activity would be manifested in sallying out for pollen, as in cases where the bees are prosperous.

There is a new hive going round the country called the "subtended" hive, I think, which has for its main principle, the transferring of bees to new habitations, by a change of drawers; there being three drawers, and every third year, the bees are forced into a new domicil. This is precisely the same principle upon which Mr. Allen acts with his two boxes, and it will sooner or later "blow up bees, hives, honey, and all."

Admitting that the aforesaid plan works well, and that the bees suffer no detriment from the change, it is not the most *profitable* course to pursue in the end, as I shall endeavor to show.

T. B. MINER.

Ravenswood, L. I., Sept., 1847.

AGRICULTURAL IMPLEMENTS.

It would be astonishing beyond measure if we could ascertain with certainty, the amount of loss annually sustained by our farmers in consequence of using worthless or worn-out implements. "I can make out with this," costs many a farmer a large portion of his labor. Any one can save a dollar whenever it is earned, but the important question always is, does it cost more or less than a dollar to do it? In many instances it costs three, five, or ten. I know a plantation in my neighborhood, which *lost* last year, in that single season, in my opinion, from \$1500 to \$2000 by attempting to cultivate with old worthless tools. To counterbalance this loss, they *saved* possibly \$100. I have frequently seen a man at work with a hoe, when, if he had been supplied with a good one, he would have paid for it in the *extra* labor of a single day.

On this subject there are two rules necessary to be laid down and acted upon. *First*, make it a matter of principle always to exercise the best judgment and acquire the best information in the selection of the most approved kinds of implements for each kind of work. *Secondly*, never suffer a tool much worn, or out of repair, to be used. Lay it aside for repair, or what, in many cases, is still better, throw it away as soon as possible.

How important is a *good plow*! I should think a man, with two horses and a good plow, would do as much work in a day as is frequently done in this part of the country in a day and a half with the implements often used, chiefly made in the western country. Not only do poor plows do but little work, but they do it very badly. They never plow *deep* enough, and hence the complaint

of "dry weather." The *weather* would not be so very dry if the ground had been *plowed deep* in the spring, instead of being *scratched*.

In this part of the country, most of our agriculture being the cultivation of cotton and corn, we have a good deal of plowing between the rows. Here we use the turning plow a great deal too much and too late in the season. Once plowing between the rows of corn or cotton is enough, if you give the rows a sufficiency of light work, with the cultivator or sweep, afterwards. But never decide against them because they "don't clean the land or work well." The reason is they are not made right, and want throwing away. A good sweep or cultivator does the handsomest and most complete work imaginable, leaving the ground in neat order without tearing up the roots of the corn or cotton, and will go over the ground two and a half times as fast as a turning plow. R. ABBEY.

Near Yazoo City, Miss., July 15th, 1847.

VALUE OF HEN-MANURE.

THE complaint of the fly on turnips and of bugs on cucumber and other similar vines is one of yearly, and sometimes, of longer occurrence. The mischief done by these little pests, is very provoking, and frequently results in losses of labor and good crops, which are very discouraging to cultivators. I have lately been informed by an intelligent and skilful cultivator, that the following preparation affords an ample and complete remedy. Take hen-manure one part, reduce it as well as you can to powder; then with an equal part of plaster of Paris [or guano] incorporate well together, and sprinkle the mixture over the vines or sow them over the drills of your turnips.

Hen-manure is free from the seeds of foul weeds, and in consequence of the great abundance of ammonia it contains, it possesses a great effect in pushing plants forward. Hence, for tomatoes, peppers, and similar plants, in our northern climate, it possesses high value. It is well worth being saved with care by farmers and gardeners for every purpose of cultivation. Care must be used, however, in its application, for if given in too large quantities and placed in too close proximity to the roots of the plant, its effects are fatal. Its value for all purposes is greatly increased, by being mixed with charcoal, or when this is not at hand with plaster. Every man who keeps hens, should have his hen-house so constructed as to save all the manure, and save it dry as may be, and he will find it no inconsiderable item in his matters of rural economy.

W. BACON.

Mount Osceola, June 14th, 1847.

HEAVY FLEECES.—Mr. A. L. Bingham, of Cornwall, Vermont, writes us that his flock of 390 Merino sheep averaged the present year's shearing, a fraction over 5 lbs. 7 oz. each, per head, of clean-washed, well-tagged wool. Few buck-fleeces were among these to swell the average. Mr. B. has recently increased his flock to 500 ewes, and having procured for a fresh cross, a superb Merino buck, from the late importation of Mr. Taintor, of Hartford, Ct., he will be able doubtless, another year, to show a lot of lambs which will do him great credit as a breeder.

Ladies' Department.

HOW TO MAKE APPLE-BUTTER.

In the December number (1846) of the *Agriculturist*, you express a wish to know how the best apple-butter can be made, and as I consider myself *au fait* at that business, I have great pleasure in sending such directions as I believe to be the best.

The large copper-kettle three-quarters full of new sweet cider, made from sound apples, is set over the fire before five o'clock in the morning. I let it boil two hours, and then put in as many apples, which were peeled, cored, and cut up the night before, as will fill the kettle, and at the same time, I throw in about two quarts of nicely cleaned peach-stones, which by sinking to the bottom, and being moved about incessantly by the stirrer, prevent the fruit from settling and burning, which would spoil the whole. I take care in selecting the apples to secure a large proportion of sour ones; for, as the cider is sweet, unless this precaution be taken, the sauce will have a vapid taste that nothing can remove; and all the apples must be of kinds that will boil easily to a jelly. On the hearth, around the fire, I place numerous pans and pots of apples and cider, simmering and stewing, which I empty into the kettle as fast in succession as the contents boil away enough to make room for them; but after twelve o'clock I never allow any more to be added to the mass. The boiling must be continued steadily until the whole is reduced to a smooth, thick marmalade, of a dark, rich brown color, and no cider separates when a small portion is cooled for trial.

From the moment the first apples are put into the boiling cider, the whole must be stirred without a moment's intermission, otherwise it will settle and burn; but the handle of the stirrer must be passed from hand to hand as often as fatigue or inclination makes a change desirable.

My kettle holds half a barrel of cider, which, with the first apples in it, begins to boil about nine o'clock in the morning, and the whole is done enough by eight o'clock in the evening, when a sufficient quantity of powdered all-spice, cloves, and cinnamon, may be added to season it to your taste. The apple-butter must be dipped out as soon as possible when it stops boiling; for, if it cools in the copper or brass, it is in danger of becoming poisonous, as may be detected even by the unpleasant taste imparted by the action of the acid upon the copper. I prefer sweet stone, or earthen-ware pots to keep it in, but where the quantity made is very large, a barrel may be employed.



STIRRER.—FIG. 71.

A friend has suggested to me that as our stirrer is not generally known, and as it seems to be the best fitted for the purpose of any instrument I know

of, I send the above sketch, from which any handy lad of fourteen years can easily make one for his mother. The handle should be about six feet long, in order that the cook may keep from the heat and danger of fire. The other part should be of heavy oak-board, six inches broad, with two transverse slits in the lower part, and long enough to reach the bottom of the kettle, so that while it moves, the handle has need only of a steady horizontal motion.

E. S.
Eutawah.

HOW TO MAKE PICKLES.

In the preparation of pickles, it is highly necessary to avoid employing metallic vessels; as both vinegar and salt corrode brass, copper, lead, &c., and become poisonous. When it is necessary to heat or boil vinegar, it should be done by placing it in a stone-ware jar in a vessel of hot water or on a stove. Glazed earthen or potter's ware should be avoided either for making or keeping the pickles in, as it is dangerous to health on account of its being glazed with lead, which all acids will corrode or dissolve.

Pickles should be kept from the air as much as possible, and only touched with wooden spoons. The vessels, in which they are kept, should be made of glass or stone, and even those of wood may be employed with success. They are also better preserved in small bottles or jars, than in large ones, as the more frequent opening of the latter exposes them too much to the air. Copper, or verdigris, is frequently added to pickles, to impart a green color; but this *poisonous* ingredient becomes mixed with our aliment, the effect of which on the health of individuals cannot but be sensibly felt. If a green color be desired, it may be imparted to the pickles by steeping in vinegar vine-leaves, or those of parsley, or spinach. A teaspoonful of olive-oil is frequently added to each bottle to keep the pickles white.

Gherkins may be made by steeping small cucumbers in strong brine for a week, and then, after pouring it off, heating it to the boiling point, and again pouring it on the fruit. In twenty-four hours, let the cucumbers be drained on a sieve, then put into wide-mouthed bottles or jars, fill them up with strong pickling vinegar, boiling hot, in which has been steeped a little spice; cork up immediately, and tie over with bladder. As soon as cold, dip the corks into melted bottle-wax, and keep them in a cool place until required for use.

In a similar manner may be [pickled, onions, mushrooms, large cucumbers, green nasturtiums, gooseberries, cantelopes, walnuts, melons, barberries, peaches, lemons, tomatoes, bean and pea-pods, codlins, grapes, radishes, cauliflower, red cabbage, and beet-root, observing that the softer and more delicate articles do not require so long soaking in brine as the harder and coarser kinds, and may often be advantageously pickled simply by pouring very strong vinegar over them, without the application of heat.

How to PREPARE SOYÉS' PATENT MUSTARD.—Steep the mustard-seed in twice its bulk of strong vinegar (distilled or concentrated by freezing) for eight days; grind the whole to a paste; then put it into pots, and thrust into each a red-hot poker.

Boys' Department.

TREATMENT OF ANIMALS.—No. 3.

In my last number, I promised to say something of a certain horse-taming exploit in connexion with one Sullivan, which will be found in the little book then referred to, entitled the "Horse and his Rider," and is nearly as follows:—

At the spring meeting of 1804, Mr. Whalley's horse, King Pippin, was brought on the curragh, or race-course, of Kildare, in Ireland, to run. He was an animal of the most strangely savage and vicious disposition. His particular propensity was that of flying at, and worrying any person who came within his reach; and, if he had an opportunity, he would turn his head round, seize his rider by the leg with his teeth, and drag him down from his back. For this reason he was always ridden with what is called a *sword*; that is, a strong, flat stick having one end attached to the check of the bridle, and the other to the girth of the saddle—a contrivance to prevent a horse of this kind from getting at his rider.

King Pippin had long been difficult to manage, and dangerous to go near; but on the occasion in question, he could not be got to run at all. Nobody could put the bridle on his head. There was a large concourse of people assembled on the curragh; and one countryman, more fearless than the rest of the lookers on, volunteered his services to bridle the horse. No sooner had he commenced operations, than King Pippin seized him somewhere about the shoulders, and shook him as a dog does a rat. Fortunately for the poor fellow, his body was very thickly covered with clothes; for on such holiday occasions an Irishman of his class is fond of displaying his wardrobe, and if he has three coats in the world, he is sure to put them all on. Owing to this circumstance, the horse never fairly got hold of his skin, and the man escaped with little injury, except the rent and ruined condition of his holiday attire.

The "Whisperer" was now sent for. This mysterious horse-tamer soon arrived, was shut up with the horse all night, and in the morning exhibited the hitherto ferocious animal following him about the course like a dog—lying down at his command—suffering his mouth to be opened, and any person's hand to be introduced into it—in short, almost as quiet as a sheep. He came out the same meeting and won his race, and his docility continued satisfactory for a considerable period; but at the end of three years, his vice returned, and then he is said to have killed a man, for which he was slain.

The man who effected the wonder above described, was an awkward, ignorant rustic, of the lowest class, by the name of Sullivan, but better known by the appellation of the *Whisperer*. His occupation was horse-breaking. The nickname he acquired from the vulgar notion of his being able to communicate to the animal what he wished by means of a whisper; and the singularity of his method seemed in some degree to justify the supposition. How his art was acquired, or in what it consisted, he never disclosed. Sullivan died about the year 1810. His son, who followed him in the same trade, possessed but a small portion of the art, having never

learned the true secret, or being incapable of putting it into practice.

When sent for to tame a vicious beast, Sullivan directed the stable in which he and the object of his experiment were to be shut, with orders not to open the door until a signal was given. After a *tête-à-tête* of about half an hour, during which little or no bustle was heard, the signal was made, and upon opening the door, the horse appeared lying down, and Sullivan by his side, playing with him like a child with a puppy-dog. From that time, the animal was found to be perfectly willing to submit to any discipline, however repugnant to his nature before.

In common cases this mysterious preparation was unnecessary. The whisperer seemed to possess an instinctive power of inspiring awe, the result, perhaps, of natural intrepidity, in which, it is believed, a great part of his art consisted; notwithstanding, the circumstance of the *tête-à-tête* shows that, on particular occasions, something more must have been added to it.

S. A.

WASHING HANDS.—To promote the softness of the skin, mild emollient soaps, or those abounding in oil, should alone be used, by which means chaps and chilblains will generally be avoided. The coarse, strong kinds of soap, or those containing much alkali, should for a like reason be rejected, as they tend to render the skin rough, dry, and brittle. The immersion of the hands in alkaline leys, or strongly acidulated water, has a similar effect. When the hands are very dirty, a little good soft soap may be used with warm water, which will quickly remove oily and greasy matter. The use of a little sand, or powdered pumice-stone, with the soap, will generally remove the roughness of the skin even when induced by exposure to cold.

The use of a small quantity of chloride of lime and warm water, will impart a delicate whiteness to the skin; but this should only occasionally be employed, and then it should immediately be washed off with clean water to remove its odor.

LORD BYRON ON CLEAN HANDS.—In an amusing letter to a friend in Paris, in 1817, Byron said: I never was a great phrenologist, Pauline, nor do I pretend to read mankind so quickly as yourself, but if a stranger comes in, I generally look at the state of his hands. To a gentleman, dirty hands are an abomination—that settles one point. A respectable man never presents himself with dirty hands and foul nails—so if I find my customer with these credentials, I conclude that he is an idler, a drunkard, or a scamp, and I show him out as soon as possible.

HOW TO MAKE CONGREVE, OR Loco-Foco MATCHES.—Take chlorate of potassa 2 parts; phosphorus 4 parts; gum-arabic 7 parts; and gelatine 2 parts. The phosphorus and gum are first divided or broken, and then brought to a state of thick mucilage by being warmed; the gelatine is melted and added to the phosphorated mucilage. The chlorate of potassa is bruised in a mortar, and at the same time moistened with the mucilage. When it is bruised, the whole is mixed together, and a paste is obtained, with which matches, tipped with sulphur, may be embued. They are then dried in the air.

FOREIGN AGRICULTURAL NEWS.

By the arrival of the Steamer *Cambria*, we are in receipt of our foreign journals to the 4th of August.

MARKETS.—*Ashes*, sales limited. *Cotton*, a slight improvement. *Flour and Grain* of all kinds have experienced a further heavy decline in prices. *Provisions* and most other American products were dull and had fallen a trifle.

Money was scarce at 5 to 6 per cent.

The *Weather* continued very fine, and the harvest in the south of England had commenced promisingly. On the continent the crops prove uncommonly good. The state of the potato-crop leads to the belief that the disease is much mitigated, being confined to small localities.

Show of the English Agricultural Society.—The annual Show of this Society was held at Northampton, on the 20th of July. The Implement Show-yard was larger and better filled than at any previous meeting of this Society. The number of machines exhibited is stated to have been at least one-third greater, and though there were not many novelties among them, their quality was thought to be equal, if not superior, to the standard of the previous year.

The exhibition of cattle, sheep, &c., and particularly of horses, is represented as very excellent.

On our receipt of the full report, if anything offers by the way of improvement, that will be adapted to this country, it will be duly considered.

Solvent Action of Rain-Water on Soils.—In the autumn of 1844, it occurred to John Wilson, Esq., of East Lothian, where the system of thorough drainage is very extensively carried out, that the drainage-water during its percolation of the soil must necessarily dissolve out and carry away a great portion of soluble constituents of it, which, by the practice as at present followed, are carried off the land and consequently lost to the farmer. He accordingly, between that time and the following spring, took advantage of the fall of rain, subjected several samples of drainage-water he had collected, to chemical analyses, the results of which were quite sufficient to show that his conjectures were well founded. During the autumn there fell about the usual quantity of rain. On the 16th of May, 1845, he collected some drainage-water, from a field which had lain plowed in winter fallow, having been prepared, a few days before, for seed, and sown with guano and barley. From this sample of water, 18 lbs. on evaporation, gave 27½ grains of solid residue, or about 8.44 grains to the pound, which were composed of the following ingredients:—

	Grains.
Organic matter, &c.	7.8
Silica,	0.7
Silicate of alumina,	0.2
Peroxide of iron,	2.25
Phosphate of Magnesia,	1.8
Magnesia?	1.69
Chloride of Sodium,	2.615
Chloride of calcium,	2.107
Carbonate of lime,	2.7
Phosphate of lime,	3.1
Phosphate of alumina,	0.45
Loss,	2.088

27.5

From the above experiment it would appear to be expedient for the farmer to avoid using large quantities of soluble manures, at a time, on porous leachy soils; and instead of giving his land sufficient manure to last two or three seasons, to divide the quantity, and apply it in as small a proportion and as frequently as the nature of his crops will permit.—Condensed from the *Philosophical Mag.*

Zinc.—During the last fifteen years I have employed zinc for various purposes to which I thought it was

applicable, such, for instance, as in the covering of structures with flat roofs, where lightness of material was an object, and in the lining of cisterns for growing tender aquatics; also for ornamental chimney-tops, and as gutters for the circulation of hot water on the tank system, &c.; but I regret to say that, unless for the purpose first mentioned, it has not answered the expectations I had formed of its utility. When used for gutters it is liable to bulge and get out of form by every change in the temperature of the water, and very soon breaks into holes. As a chimney-top, I have found that the soot in a short time attaches itself to the metal and rapidly corrodes it. If not attended to, it becomes choked, and in danger of being burnt down by the first spark from the chimney. Of this I have had more than one memorable example, and I should just as soon think of putting up an ornamental chimney-top of wood as of zinc—the one being nearly as inflammable as the other. For dairy-utensils I am aware that zinc has been highly recommended, and milk-pans made of it are said to throw up cream much better than pans of any other material. So far, however, as I have had experience in this respect, I cannot say I have found zinc-pans to possess any superiority over those of earthenware and others in general use. On the contrary, I am convinced, from the little trial I made, that the milk sooner becomes tainted in the former than in the latter, and that zinc-vessels ought to be used with caution for any purpose connected with a dairy, especially when it is known that this metal is most readily acted on by acids, and that the salts so formed are poisonous.—*Gardeners' Chronicle.*

Approved Bee-Flowers.—Borage, mignonette, Phacelia tenacitifolia, Salvia nemorosa, Lythrum salicaria, winter aconite, crocuses of sorts, hepaticas single, wallflowers single, raspberry, and other fruit-trees, heath, lime-trees, willows, turnip, rape, and all the brassicas, mustard, buckwheat, white clover, lemon, thyme, laurustinus, currant, gooseberry, Chionoceea racemosa, Buddleia globosa, Cacalia suaveolens, white alyssum, winter-vetches, autumn-ivy, Hypericum perforatum, archangel, Erysimum pereskianum, Tussilago petasites, dandelion, &c.—*Agricultural Magazine.*

Advantages of Transporting Live Stock on Railroads.—It is estimated that the average loss upon all distances by driving, and consequent saving by conveyance on railway, is 5 lbs. per quarter for bullocks, or 20 lbs.; 2 lbs. per quarter, or 8 lbs. for sheep; and 2½ lbs. per quarter, or 10 lbs. for hogs. This is believed to be a low estimate. Mr. H. Handley, one of the heads of the agricultural interest, calculates the loss on driving from Lincolnshire to London, say 100 miles, at 8 lbs. in weight, and 15s. to 30s. in money for sheep. The time for sheep he calculates at 8 days for getting up to market, which is equivalent to three or four market days, during which the chances of the market may be much affected. The promoters of the Northern and Eastern Railway, in their prospectus, calculate the loss on driving a hundred miles, at 40s. for bullocks, and 5s. for sheep. They estimate the supply of the London market at 150,000 beeves, and 1,500,000 sheep per annum, the saving on which, by railway conveyance, they set down at £675,000. This saving might be fairly taken at 40 lbs. for bullocks, 8 lbs. for sheep, and 20 lbs. for swine; which would give a gross saving of pounds of animal food on the present number conveyed on railways, as follows: on 220,000 cattle, 8,800,000 lbs. of beef; on 1,250,000 sheep, 10,000,000 lbs. of mutton; on 550,000 swine, 11,000,000 lbs. of pork. This would give a total of 29,800,000 lbs. of animal food economized, even at the present moment, in the infancy of the railway system.—*Railway Register.*

Linseed-Oil.—In Rutlandshire many farmers have lately used large quantities of linseed oil in feeding cattle and horses, by sprinkling it on their hay.

Editor's Table.

STOCK AND IMPLEMENTS FOR THE SHOW OF THE N. Y. STATE AG. SOCIETY.—These must all be at Troy early on Saturday morning, September 11th, in order to be transported on that day to Saratoga. Those having stock to show, will bear this particularly in mind. If any are in doubt about the regulations, or wish to be advised on any particular point, they will do well to address B. P. Johnson, Esq., at Albany, Secretary of the Society. In all their calculations, those desiring to exhibit, will bear in mind that it is better to be too early than too late.

RETURN OF PROFESSOR NORTON.—We have great pleasure in stating, that our excellent friend and correspondent, Professor John P. Norton, of Yale College, returned from Europe last month in the Steamship Washington. He has, altogether, spent several years abroad for the purpose of perfecting himself in his studies, and will soon enter upon the duties of Professor of Agricultural Chemistry, at Yale College. Students will now have a good opportunity of studying this highly useful science at home, and we trust it will be the means of giving an impetus to agriculture not yet known among us.

THE PICTORIAL HISTORY OF ENGLAND; being a History of the People, as well as a History of the Kingdom. Illustrated by several hundred wood-cuts of Monumental Records, Coins, Civil and Military Costume, Domestic Buildings, Furniture, and Ornaments; Cathedrals and other great works of Architecture, Sports and other Illustrations of Manners; Mechanical Inventions; Portraits of the Kings and Queens; and remarkable Historical Scenes. By George L. Craik and Charles MacFarlane, assisted by other contributors. New York: Harper & Brothers. Vol. ii., pp. 876, large octavo. Price, 25 cents per number, or \$3.50 a volume. The more we become acquainted with this work, as it issues, the more we are convinced of its excellence and adaptation to the tastes of the American people; not only because it is intrinsically the most authentic, the most attractive, and the most valuable history of England ever published, but because it shows the rise and progress of a race distinguished alike for genius, true bravery, love of liberty, and a generous glow of patriotism, whether considered in respect to time, place, or external influence; with institutions recognising the equality of all in political rights; affording protection to the weak against the powerful; and securing to all equal freedom of opinion and conscience administered according to laws framed with the consent of all.

To show the pains and expense bestowed upon the preparation of this work, it may be stated that, for contributions alone, \$250,000 have been paid, inclusive of payment to artists, printers, and others belonging to the craft. We would invite the especial attention of the farming community generally to the pre-eminent claims of this sterling and most important publication. It is incomparably more thorough, accurate, and attractive, as well as more suited to the habits, feelings, and genius of our people than Hume, Smollett, Granger, Goldsmith, and all former historians; and we therefore repeat the recommendation that every family in our land, who can afford it, should subscribe for the work as it appears in numbers. The illustrations are both curious and very attractive, and we would add are alone well worthy the price asked for the numbers.

DEATH OF MR. SAMUEL WAITE.—We notice with much regret the decease of this excellent friend of agriculture. He died at his residence in Coldenham, Orange County, N. Y., on the 29th of July last. Mr. Waite was a native of Somersetshire, England, but emigrated to this country at an early age, and has ever since assiduously devoted himself to the pursuits of agriculture. He was extensively engaged for several

years in the importation of the improved breeds of horses, cattle, sheep, and swine, both here and at the South and West; and while in this business, he crossed the Atlantic thirteen times. For the past few years he remained on his farm, in Coldenham, devoting his attention to its improvement, and the breeding and dissemination of his flocks and herds. In the formation of the Orange County Scientific and Practical Agricultural Institute, he took an active part. He was also a very efficient member of the Orange County Agricultural Society, and was one of its best supporters. We have often had the pleasure of visiting Mr. Waite, his father, and brothers, all of whom are most excellent farmers. We deeply sympathize with them and all other friends in the loss they have sustained. His place will not easily be made good.

GROWTH OF INDIAN CORN.—The hot weather of the last fortnight has almost doubled the growth of corn. A man in Amherst noted the growth of a single stalk during three hot days last week, as follows: first day, 6 inches; second $5\frac{1}{2}$; third 5; total, $16\frac{1}{2}$ inches in three days.—*Springfield, Mass., Republican.*

Last season, we measured corn for many days in July, in the town of Wheatland. Five inches in 24 hours was the largest growth noted. All vegetable physiologists concur in saying that plants give out carbonic acid at night, and absorb oxygen; and leave it to be inferred that they do not grow except during the light of day. [Can they not receive nourishment through the roots during the night?] We found, however, that corn and a grape-vine increased in length quite as fast from 8 P. M. to 4 A. M. as during any portion of the sixteen hours from 4 A. M. to 8 P. M.

Few are aware how much water a hill of growing corn will throw off from its long and broad leaves during a hot day in July. During this rapid evaporation, not a particle of the mineral matter taken up into the circulation with the water that enters the roots escapes with the vapor into the atmosphere. When these minerals exist in the soil in due proportion to meet the precise wants of the organizing tissues, such organization, in favorable weather, goes ahead at a cracking rate. To feed living corn-plants judiciously, is a point in agriculture not sufficiently understood.—*Rochester Am.*

COUNTRY RESIDENCE OF MR. DEY.—We would call attention to the advertisement of Mr. Dey in another part of our columns. We are informed by those acquainted with his place that it is one of the most desirable residences for a country gentleman to be found in northern New York.

FARMING IN VERMONT.—The largest farm in Vermont is said to be that of Judge Meech, at Shelburne, eight miles south of Burlington. A correspondent who has just been over it says, this year he will mow over 500 acres and cut 1000 tons of hay. He keeps 300 sheep, and has now 400 head of neat cattle. A few days ago he sold fat oxen enough to amount to the sum of \$2460. He has also sold this season 1000 bushels of rye.—*Ex.*

CRANBERRIES.—Mr. William Hall, of Norway, Me., has succeeded in raising cranberries on a patch of boggy land. He sowed the berries in the spring, on the snow and ice. The seed took well, and rooted out the weeds. Last year he gathered six bushels from a patch of land about three rods square, which, a few years since, was entirely useless. If this berry, which commands so high a price, can be as easily cultivated as this, it certainly is an object for farmers to try the experiment on their boggy lands.

CHANGE IN THE POST-OFFICE REGULATIONS.—Post-masters are prohibited from forwarding subscriptions for public journals, as they have been in the habit of doing for a long time past, the regulations which conferred this privilege having been rescinded. Hereafter persons desiring to subscribe, or to renew their subscriptions to newspapers, must enclose the money in a letter.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, AUGUST 21, 1847.

ASHES, Pots,	per 100 lbs.	\$5 25	to	\$5 31
Pearls,	do.	8 00	"	8 25
BALE ROPE,	lb.	5	"	6
BARK, Quercitron,	ton,	37 00	"	40 00
BEANS, White,	bush.	1 00	"	1 50
BEESWAX, Am. Yellow,	lb.	24	"	30
BOLT ROPE,	do.	11	"	12
BONES, ground,	bush.	40	"	55
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	25
Shipping,	do.	9	"	15
CANDLES, Mould, Tallow,	do.	10	"	12
Sperm,	do.	25	"	38
Stearic,	do.	20	"	25
CHEESE,	do.	5	"	10
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	10	"	14½
COTTON BAGGING, Amer. hemp,	yard,	11	"	14
FEATHERS,	lb.	25	"	34
FLAX, American,	do.	7½	"	9
FLOUR, Northern and Western,	bbl.	5 00	"	5 88
Fancy,	do.	6 00	"	6 25
Southern,	do.	5 00	"	5 75
Richmond City Mills,	do.	7 25	"	7 31
Buckwheat,	do.	—	"	—
Rye,	do.	3 75	"	4 25
GRAIN—Wheat, Western,	bush.	1 20	"	1 25
Southern,	do.	1 00	"	1 20
Rye,	do.	83	"	88
Corn, Northern,	do.	75	"	80
Southern,	do.	74	"	78
Barley,	do.	50	"	52
Oats, Northern,	do.	55	"	60
Southern,	do.	45	"	50
GUANO,	do.	2 50	"	3 00
HAY, in bales,	100 lbs.	45	"	50
HEMP, Russia, clean,	ton,	275 00	"	280 00
American, water-rotted,	do.	160 00	"	220 00
American, dew-rotted,	do.	140 00	"	200 00
HIDES, Dry Southern,	do.	7	"	9
HOPS,	lb.	10	"	15
HORNS,	100.	2 00	"	10 00
LEAD, pig,	do.	3 90	"	4 00
Sheet and bar,	lb.	4½	"	5½
MEAL, Corn,	bbl.	2 50	"	3 00
Corn,	hhds.	20 00	"	22 50
MOLASSES, New Orleans,	gal.	37	"	39
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	2 25	"	2 63
Pitch,	do.	88	"	1 06
Rosin,	do.	55	"	70
Turpentine,	do.	2 75	"	3 00
Spirits Turpentine, Southern,	gal.	46	"	47
OIL, Linseed, American,	do.	65	"	75
Castor,	do.	80	"	1 00
Lard,	do.	80	"	85
OIL CAKE,	100 lbs.	1 25	"	1 50
PEAS, Field,	bush.	1 50	"	1 60
PLASTER OF PARIS,	ton.	2 25	"	3 00
Ground, in bbls.,	of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	10 00	"	13 75
Prime,	do.	8 50	"	9 50
Smoked,	lb.	7	"	11
Rounds, in pickle, do.	do.	5	"	7
Pork, Mess,	bbl.	14 00	"	16 00
Prime,	do.	11 00	"	13 62
Lard,	lb.	10	"	11½
Bacon sides, Smoked,	do.	6	"	8
In pickle,	do.	5	"	7
Hams, Smoked,	do.	8	"	12
Pickled,	do.	6	"	10
Shoulders, Smoked,	do.	6	"	8
Pickled,	do.	5	"	7
RICE,	100 lbs.	4 88	"	5 75
SALT,	sack,	1 40	"	1 50
Common,	bush.	20	"	35
SEEDS—Clover,	lb.	6	"	9
Timothy,	bush.	1 75	"	3 50
Flax, clean,	7 do.	10 00	"	11 00
rough,	do.	9 25	"	9 50
SODA, Ash, cont'd 80 per cent. soda,	lb.	3	"	3
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	6	"	9
SUMAC, American,	ton,	35 00	"	37 50
TALLOW,	lb.	9	"	9½
TOBACCO,	do.	2	"	7
WHISKEY, American,	gal.	27	"	28
WOOLS, Saxony,	lb.	35	"	60
Merino,	do.	30	"	35
Half blood,	do.	20	"	25
Common do.	do.	18	"	20

REMARKS.—We have few changes to make in the quotations of our price current, and these few are unimportant. The news per Cambria, of the heavy fall in prices of Flour and Grain in Europe, had but a slight effect on our market the day after her arrival, and this has already been fully recovered. The home demand being nearly equal to the supply, there is little fear of prices ruling much lower than at present, let the harvest be ever so abundant abroad; but if bad weather should set in, prices of grain would materially advance.

Money is very plenty and business uncommonly active.

The Weather was too wet during the fore part of last month at the South, and the cotton-crop has consequently suffered somewhat. The Corn-crop there is already secured, and proves the largest ever raised in that section of the country. Other Southern products are doing finely. Everything has been well harvested at the North, with the exception of oats, which were injured more or less by the rain. The corn and root-crops continue to look remarkably well, and a fortnight hence, if the weather continues favorable, they will be perfectly matured and out of danger.

ACKNOWLEDGEMENTS.—Descriptive Catalogue of Fruit and Ornamental Trees, Shrubs, and Plants, cultivated and for sale by Ellwanger & Barry, at the Mount-Hope Botanic Garden and Nurseries, at Rochester, N. Y.; Also, a Descriptive Catalogue of Fruit and Ornamental Trees, Flowering Shrubs, and Green-House Plants cultivated and for sale at the Buffalo Nursery and Horticultural Garden, by Benjamin Hodge.

To CORRESPONDENTS.—Communications have been received from N. Longworth, J. M. R. S., A New Yorker, E. S., M. W. Phillips, A. W. Poole, and J. S. Peacock.

A Connecticut Youth is informed that vegetables generate humus, but not earth, technically so called.

We take pleasure in announcing a work on the present state, productions, commerce, &c., of "The Unknown Countries of the East," by Aaron H. Palmer, Esq., of which due notice will be given when published.

GALLOWAY COW.

A SUPERB black Galloway Cow, warranted to be of pure blood, and imported from one of the best herds in Scotland. She keeps easily, and gives a fair quantity of uncommonly rich milk. Price \$50.

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THREE Pair Fine Horses, now in the country; bay and brown with long tails; well matched, fine travellers, and superior; bred in Western New York. Address J. M. SHERWOOD, Auburn, N. Y.; or

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Also the hand Corn-Mill, which grinds from 1 to 1½ bushels per hour. Price \$6.50.

These Mills are highly economical and convenient, and every farm and plantation ought to have them. They are simple in construction, not liable to get out of repair, and are easily operated. When one set of plates is worn out, they can be replaced by others at a trifling cost.

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WANTED

A SITUATION as overseer on a plantation, by one who has devoted his whole life to practical and theoretical farming. An interview can be had by addressing L. G., care of the Editor of the Agriculturist, 187 Water st., New York.

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The phoenix of modern voyagers, sprung, it would seem, from the mingled ashes of Captain Cook and Robinson Crusoe.—*Blackwood*.

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To sum up our commendation of the work before us, we say, in all sincerity, that however well our library might be supplied with works on English history, we should consider it incomplete, nay, essentially defective, without it.—*Christian Advocate and Journal*.

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In consequence of becoming overstocked, I will offer for sale at my residence in the Town of Auburn, on Wednesday, the 8th of September next, *Forty Head of Short-Horned Cattle*, consisting of about thirty cows, heifers, and ten young bulls. I shall select from my whole herd one bull "Symmetry," two cows and two heifers, which will not be offered for sale. The balance, being about forty, will be sold without reserve. The original cows of this herd were selected from the best of the herds of the late Return Van Rensselaer, Francis Rotch, and L. F. Allen, whose reputation as breeders of fine stock requires no eulogy from me. The younger stock were bred with much care from my bulls. Archer and Symmetry; both have received the prize as the best bulls at the exhibitions of the N. Y. State Agricultural Society. "Archer" was bred by Francis Rotch, of Butternuts, from his famous imported cow "Adaliza" and got by "Rolla." (See Coats's Herd-Book, No. 4991). Symmetry was bred by Geo. Vail, of Troy, out of his cow "Dutchess," and got by his Duke of Wellington (See Coats's Herd-Book, No. 3554, or American Herd Book, No. 55), both of which he imported from the herd of Thomas Bates, of Yorkshire, England. Full pedigrees will be prepared and printed by the 1st of July—to be had at the office of American Agriculturist, N. Y., Cultivator Office and Agricultural Rooms, Albany, Office of Genesee Farmer, Rochester, L. F. Allen, Black Rock, and at my residence.

Also, I will sell Ten (10) three-fourths and half-bred cows and heifers.

After the sale of the above Cattle, I will sell at auction one hundred (100) Merino Rams, 10 to 15 South-Down Rams, Sixty (60) Merino and thirty (30) grade Merino Ewes—the Ewes sold in pens of three. That gentleman not acquainted with my sheep may form some opinion of their value, I make the following statement, viz:—

I have cut five (5) clips of wool from my flock of sheep—the clip of 1846 averaged a fraction over four (4) pounds per head. (This was the largest). One of the five clips I sold at thirty-nine cents, the other four I sold at different times to one Manufacturing Company at forty cents per lb. all at my own house.

Terms of the Sale Cash or approved Endorsed Notes payable at the Bank of Auburn at three months with interest.

J. M. SHERWOOD.

Auburn, Cayuga County, N. Y. June 1st, 1847. jy3t

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For further particulars, as to situation, improvements, advantages, &c., with price and terms of payment, application can be made personally, on the premises, or by letter (post paid), addressed to the subscriber, Oakwood Farm, near Cayuga Bridge.

spt. 3t

JOHN OGDEN DEY.

HORTICULTURAL EXHIBITION.

AT the suggestion of the State Agricultural Society, whose Fair will be held at Saratoga Springs on the 15th September, the American Agricultural Association have changed the time of holding their Exhibition to the 8th and 9th of September. All persons desirous of aiding the cause of Horticulture are earnestly invited to exhibit specimens of Flowers, Fruits, and Vegetables, and to compete for Premiums.

Programmes may be obtained of Mr. James Hogg, Seedsman, 502 Broadway, opposite the Rooms; of any of the principal Seedsmen in New York, or of the following Executive Com. LUTHER BRADISH, WM. COVENTRY H. WADDELL, JAMES LENOX, SHEPPARD KNAPP, THEO. FRELINGHUYSEN, RUFUS KING DELAFIELD, ARCHIBALD RUSSELL, R. L. PELL, EDWARD CLARK, D. P. GARDNER.

Agricultural Rooms, Lyceum Building, 561 Broadway, New York.

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ISSUED Monthly, by C. M. SAXTON, 205 Broadway, New York, containing 32 pages, royal octavo.

TERMS—One Dollar per year in advance; three copies for Two Dollars; eight copies for Five Dollars.

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September 1, 1847. 1yr

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Flushing, L. I. July, 1847.

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FOR Sale a fine Ayrshire Bull, about four months old, and bred from superior milking stock. Price \$50.

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THE Subscriber will purchase wool and sheep-pelets on delivery in good order, or receive and forward them on consignment for sale in New York.

R. L. ALLEN, 75 Camp Street, New Orleans

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